



American Aviation

25c *The News Magazine of Air Transportation* May 15, 1948

Cleared for Higher Altitude

NO SINGLE economic or industrial activity has been so dependent upon the federal government in Washington as aviation. Thus it has always been of paramount importance who are the men appointed to direct and regulate everything from private flying to commercial scheduled air transportation.

After a considerable period of uncertainty and vacancies, it is a pleasure to have some encouraging words to report.

The new Civil Aeronautics Board looks good. It has taken on new life. The new chairman, Joseph J. O'Connell is an independent thinker and not easily pushed around. He believes in action and in following the law. He speaks his mind fluently. First reactions are favorable. The same hopeful report holds for the other two members, Harold Jones and Russell Adams.

The new Civil Aeronautics Administrator, Delos Rentzel, is no government career man or no academic theorist. He's straight out of an industrial background. He's an expert on communications and operations. He, too, says what he thinks, and believes in action. Industry should be greatly encouraged to find, at last, a man of practical experience in the all-important job of Administrator.

The most encouraging word that has come out of CAA in many a year is that Del Rentzel is going to spend his first two months on the job out in the field. He wants to visit CAA regional offices, manufacturers, airline offices, fixed base operators and all of the rest of aviation activities. When visiting industry he won't be accompanied by a retinue of CAA men. He's going out on his own to learn as much as he can, the good and the bad.

Rentzel will not have to look far to find problems to tackle. Aircraft manufacturers need much realistic relief from burdensome regulations and airworthiness tests. Airlines need relief from the manifold interpretations of civil air regulations by which each region reads its own meaning into any particular regulation. The entire CAA needs a wholesome analysis from the standpoint of personnel staffing; even some top CAA officials admit freely that the outfit is overstaffed. Private flyers need their future airway aid status clarified to a considerable degree.

It's quite a new deal of the cards. Out of the six
(Turn to page 8)



New Civil Aeronautics Administrator

Delos W. Rentzel, former president of Aeronautical Radio, Inc., was confirmed by the Senate on May 6 to succeed T. P. Wright as Administrator of Civil Aeronautics. As his first move, Rentzel has indicated that he will spend his first two months out in the field learning at first hand the aviation problems facing him in his new assignment.

In This Issue

**Passenger Traffic Down,
Cargo Up 75%13**

**United's New Maintenance
Base at S. F.26**

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✕ Commercial aviation's "Front Man" is the pilot who gives his passengers a smooth, comfortable ride all the way and brings them down safely... and on time. By giving him tools that enable him to do his job better, Sperry helps him to make air travel more attractive to more and more people.

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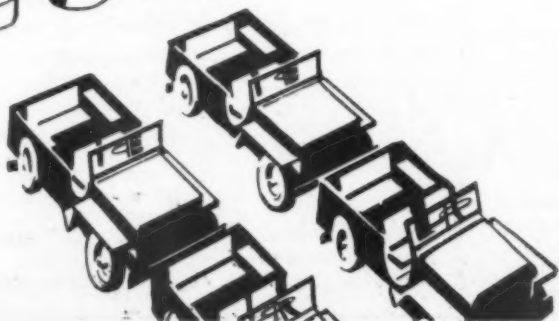
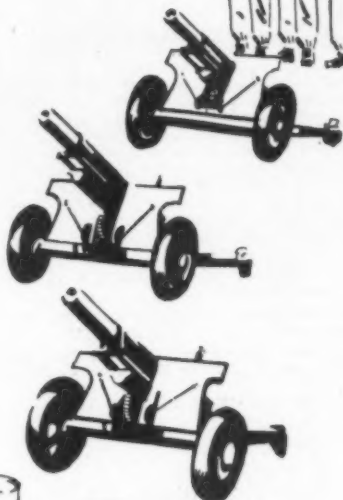
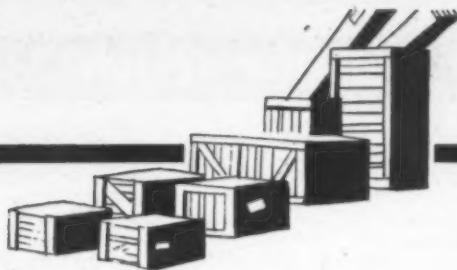
✕ These and other well-known products of Sperry *decrease* pilot tension and fatigue... *increase* passenger comfort and enjoyment.

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Fairchild's new C-119 Packet, improved version of the already famous C-82, carries up to ten tons of payload in its huge fuselage.

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FORTNIGHTLY REVIEW

Passenger volume on most of the domestic airlines during first quarter was down slightly from 1947, but air cargo was up about 75%. Mail ton-miles showed overall increase of about 375,000, according to official reports to CAB. (Page 13)

In strongly-worded decision, CAB has upheld Braniff Airways' Latin American certificate against PAA-Panagra petitions to suspend it; Braniff plans to begin service to Lima on June 4. (Page 14)

The new Military Air Transport Service, combining NATS and ATC, will begin operations on June 1, giving some evidence of economy of operation under the armed services unification set-up. (Page 23)

United Air Lines' new maintenance and overhaul base which will take care of the system's needs for years to come, was formally placed in operation late last month in San Francisco. (Page 26)

An important boom in U. S.-Japanese trade is seen in the making as result of relaxed restrictions on business travel to Japan and general liberalization of travel policies by State Dept. (Page 38)

Law Demanded to Curb Plane Profits

Profits that "may shock the nation" could be earned by aircraft manufacturers under new defense contracts unless Congress enacts a new renegotiation law, Sen. Homer Ferguson (R., Mich.) declared during hearings by the Senate Appropriations Committee considering new funds for aircraft procurement. Undersecretary of the Air Force Arthur S. Barrows agreed with Ferguson and added that "without question you would have such profits" without a new control law. Barrows urged Congress to proceed immediately to draft a new law for recapture of excessive profits, and in the meantime approve a House provision reinstating a wartime renegotiation law for all contracts awarded under the proposed appropriation. Both Barrows and Assistant Navy Secretary M. E. Andrews asked the Committee not to hold up action on the \$3,198,000,000 bill while a new profit limiting section is drafted.

AF Reveals Order for 20 More Packets

Award of a \$5,000,000 contract to Fairchild Engine and Airplane Corp. for 20 more C-82A Packets was belatedly announced by the Air Force early this month. The contract, which had been signed Mar. 10, extends production of the C-82 until latter part of this year. To date 184 Packets have been delivered, with 16 more to come, in addition to the new order which is intended as a stop-gap measure to provide troop-carrier units with modern equipment. Delivery of new C-119 Packets is scheduled to start about end of the year.

Gloom for Personal Aircraft Business

Fixed base-personal aircraft operators will find little cause for optimism in a 348-page jolt sent their way by Lynn L. Bollinger and Arthur H. Tully, Jr., in their Harvard Business School report on *Personal Aircraft Business at Airports* released on May 10. In their searching analysis of the defects in fixed base operations, the authors studied 180 of the 8,000 current local operators and concluded that there isn't room for all of them and that if GI training stopped suddenly the economic effects would be serious indeed. For the present sized industry to be prosperous without government-subsidized training would call for annual sales volume between 40,000 and 50,000, they conclude—at least two

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AMERICAN AVIATION

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Simple, conventional circuits minimize the number and types of tubes, and require no special training or techniques for adjustment. All components are accessible for routine inspection and service.

FORTNIGHTLY REVIEW

(CONTINUED FROM PAGE 4)

and a half times the 1947 volume with GI training in high gear.

Basic weakness of the industry was attributed "not so much to the obvious inadequacies of capital and management employed in sales and service operations, as commonly supposed, but more to the inherent limitations of the product itself."

The authors blame the lack of genuine growth in private flying on the lack of utility in the product itself, and blame this lack of utility on the close tie between civil and military flying in World War I. The surplus Jenny trainers "froze" operators and manufacturers into a pattern which was later adopted regulatory-wise by CAA, with the result that there never has been an industry independent of military influence.

"The widespread weakness in current finances in this industry (fixed base) constitutes a serious threat to its future," the report declares. "If any group of major suppliers should begin to put financial pressure on an appreciable number of operators, a disastrous chain sequence of bankruptcies could result. . . . Were it not for the leniency of suppliers and other creditors, bankruptcies among operators might have been high during 1947."

"Even with the utmost cooperation from all concerned, some operators still appear unlikely to survive. How great this number will be may depend on three unpredictable factors. The first is the length and severity of any business recession that may occur. The second is the rate of curtailment of the government-financed GI training program. The third and most fundamentally important factor is the time that will be required for development of the product (and its landing areas) so that the industry's demand may rest on a more solid foundation of utility."

The report is available from Division of Research, Harvard Business School, Boston 63, Mass., at \$4.25 per copy.

Names in the News:

Russell B. Adams was confirmed by the Senate on May 6 to succeed Harlee Branch on the Civil Aeronautics Board. He is a Democrat. . . . **Irving B. Babcock** has resigned as president of Avco Manufacturing Corp. on his physician's advice that his business activities be reduced. He continues with Avco as a director and consultant. **Victor Emanuel**, chairman of the board, will resume his former duties as president. . . . **Grover Loening**, aviation consultant, and **John McCone**, West Coast industrialist, have been named special advisers on aviation matters to Secretary of Defense Forrestal. Loening recently served as consultant to President's Air Policy Commission, while McCone, originally an adviser to the commission, became one of its members when Henry Ford III resigned. . . . **Fred E. Weick**, designer and developer of the Ercole, has been appointed professor and research engineer at Texas A & M College where he will direct the Personal Aircraft Research Center being established in the department of aeronautical engineering.

Notes in the News:

Glenn L. Martin Co. received a production certificate from CAA on May 6 giving company complete responsibility for inspection and individual certification of production models of the 2-0-2 transport. This is first postwar transport production certificate issued by CAA.

Naval aviation observed its 37th birthday anniversary on May 8—it was on that date in 1911 that Navy Dept., at direction of then Secretary George von L. Meyer placed an order for two aircraft with Curtiss Co., Hammondsport N. Y. . . . **The Wright Brothers' Kitty Hawk**,

first plane to fly, definitely will be placed in the Smithsonian Institution when it is returned from England at date not yet determined. . . . Changing a name that has been before the public for a decade is no simple matter, but **Pennsylvania-Central Airlines Corp.** finally accomplished this late last month when stockholders voted change in corporate name to Capital Airlines, Inc. The change was decided upon two years ago, but it was deemed advisable to make it gradually because company was so widely known as PCA. . . . **An international lightplane tour of Italy** will be sponsored by the Aero Club of Italy from June 5-13, according to the National Aeronautic Association. Contest is open to aircraft manufactured in all countries which have national aero clubs affiliated with the Federation Aeronautique Internationale.

International

International Federation of Airline Pilots

The International Federation of Airline Pilots' Associations has been formed by airline pilots from 16 countries meeting in London. The meeting had been called by the British Air Line Pilots Association for purpose of forming a body which would be recognized in international aviation. The federation will request right of representation at meetings of the International Civil Aviation Organization. Pilots have felt that regulations were being adopted and legislation passed without consideration of their views.

Pilot representatives were present from Argentina, Australia, Belgium, Canada, Czechoslovakia, Denmark, Eire, France, Holland, New Zealand, Norway, Rhodesia, South Africa, Switzerland, United Kingdom, and the United States. H. B. Cox of the Air Lines Pilots Association represented the U. S. Rules and regulations will be drawn up at meeting in Paris next September. Meantime, D. Fellows, BALPA secretary, is acting as secretary.

58% of World Airlines Privately Owned

Only 21.5% of the world's airlines were government-owned last year, while 58.6% were privately-owned, according to analysis of a study made by the International Civil Aviation Organization. Those of mixed ownership constituted 15.1% while ownership of 4.8% was not known. By numbers, 40 of the 186 airlines listed were government-owned, 109 privately-owned, 28 mixed, and 9 not known (for purposes of the analysis, Scandinavian Airlines System is classified as of mixed ownership, although ICAO describes the Swedish third as privately-owned). The study is entitled "Survey on Ownership of Airlines" as of Nov. 30, 1947. It contains data on stock distribution and ownership of the lines listed. Copies are available from ICAO, Montreal, for 75c each.

Tudor IV's Okayed for Passengers

The Tudor IV can now be used for carriage of passengers, but it can not be flown between the Azores and Bermuda until range and consumption tests are completed. This limited approval was given by the British Minister of Civil Aviation, on advice of the air safety board. The model had been grounded following loss of a British South American Airways' Tudor IV on Jan. 30 between the Azores and Bermuda, but later was allowed to resume flying for cargo purposes.

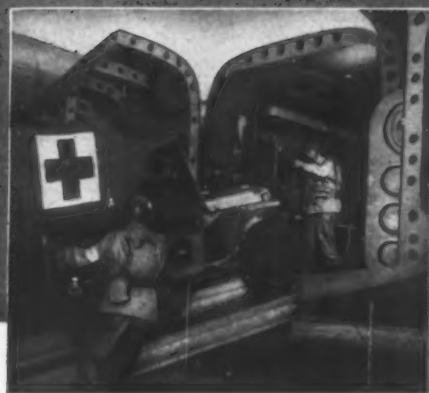
Service to Palestine Canceled

KLM Royal Dutch Airlines, British Overseas Airways, and Air France late last month announced cancellation of service to Lydda airport in Palestine. TWA, only U. S. airline serving Lydda, discontinued flights there in March, because of the turbulent military situation.

AMERICAN AVIATION



Pattern for Swift Mobility



Speed is a prime essential in the modern concept of military maneuver. And speed, today, has to have wings.

In cooperation with the Air Forces and the Ground Forces, Fairchild research and engineering skill help provide those wings.

The rugged, hard-working C-82 Packet is now in service with the Troop Carrier Command as the standard transport for troops and guns, trucks and

supplies. Its fitness for this important assignment was demonstrated in practical maneuvers such as Operation Yukon and Exercise Snowdrop.

Now, Fairchild engineering ingenuity has created the C-119—a new Packet that flies faster and farther and carries an even greater load.

In these two airplanes our military minds have found new answers to old problems, and around them have built a new pattern for swift mobility.

 **Fairchild Aircraft**

Division of Fairchild Engine and Airplane Corporation, Hagerstown, Maryland

EDITORIAL

(CONTINUED FROM PAGE 1)

important men in civil aviation—five CAB members and the CAA administrator—four are new in their jobs. All four stack up well at the start. All four seem aware of the vast importance of their positions in guiding civil aviation during these postwar years. They deserve every cooperation in being given a chance to succeed.

Utility Still Needed

NEVER has the personal aircraft and fixed base operation field been given such a thorough, analytical and realistic appraisal as it gets in the Harvard Business School report just published by Lynn Bollinger and Arthur Tully, Jr. The 348-page book, "Personal Aircraft Business at Airports," is "must" reading in aviation. It says better what many oldtimers in aviation think than anything that has appeared to date.

The story is not exactly new, but it is well told. The present light airplane lacks the utility, safety and ease of operation necessary to tap the substantial volume market. The present airplane is a hold-over of the original Jenny military trainers, and military influence has dominated—and restricted—private flying development ever since World War I.

The fixed base field, now occupied by some 8,000 operators, is far overcrowded. If and when federal-subsidized GI flight training disappears—and 1948 is probably its last big year—the law of economics is going to reduce the fixed base field very substantially. Personal aircraft ownership has shown some definite gains since the war, but not nearly enough to support the current number of local operators. And not enough to keep all of the lightplane manufacturers in business profitably.

It is not a pretty or encouraging picture which Messrs. Bollinger and Tully unfold. But it needs to be told, because out of the artificial and subsidized postwar boom can come a fundamentally sound personal aircraft industry. It is a job needing the help of the CAA. The crux of the problem is the development of a useful vehicle. Messrs. Bollinger and Tully deserve real credit for stating the issues clearly and frankly.

Aerial Trailer-Trucks

IN THE realm of intriguing possibilities is the contract awarded recently by the Air Force to Fairchild Aircraft Division of Fairchild Airplane & Engine Corporation for the design and development of a detachable fuselage aircraft.

This is the trailer-truck principle adopted to the air, and it may well open up new horizons for both military and commercial purposes.

Every airplane today has its own exclusive power unit. During the war the glider was exploited as a means of transporting a series of containers with but one aerial locomotive, but the glider has proved not too successful for military work and virtually useless for commercial operations.

Perhaps in the detachable fuselage aircraft the answer to greater utilization of power units will be

found. It is certainly true that a powered airplane is independent and flexible in its uses, yet when the fuselage must be on the ground for loading or unloading, the power units are necessarily idle.

For some years J. S. J. Hlobil, the aeronautical engineer, has been proposing to the Air Force and to commercial interests that they separate the "flying" and the "cargo-handling" operations by having an airplane that would serve as a locomotive and on which could be attached various types and sizes of cargo fuselages or units. But if any development of this type is to be done, it must originate, because of the costs involved, with the Air Force.

In the Fairchild plan the possibilities are considerable. Such facilities as communications trailers, statistical control units, portable mess sections, and flying surgical units can be designed within a detachable fuselage. While these units are on the ground, the airplane itself will be capable of flying without a fuselage. This means much greater utilization of the airplane.

If the power unit can be detached from the box-car successfully, the potential air lift in a military emergency would be very substantially greater. In any event, it is surely worth finding out what can be done. If it is practicable in the motor trucking industry, it might well be practical with air cargo.

Thirty Fleeting Years

LEST WE forget in this age of swift and breathtaking developments, the carriage in the skies of man's correspondence by regular schedule is but 30 years old on May 15.

Today nearly 2,250,000 letters a day are carried by the airlines of the United States. Each letter flies an average of 1,402 miles. What air mail has meant to commerce is impossible to estimate, but we all know it has become invaluable in the economic and social life of the country.

Back a short 30 years ago a skeptical Congress appropriated \$100,000 for one year to establish an experimental air mail route. You can imagine the scoffing of the conservatives and the pleadings of the men of vision. Very probably no one, friends or foes, dreamed in 1918 that we would have in 1948 a vast network of airlines shrinking our large continent to a time sphere of a few hours. As we begin to enter the age of jet propulsion can anyone visualize what we will have in 30 years from now?

Modern Campaigner

HAROLD E. STASSEN is the first presidential campaigner to make real use of air transportation. His victories to date are attributable to tireless campaigning over a wide part of the country on a schedule that would be impossible to keep except by chartered airplanes. His rivals are now finding that casual rail travel to a few points isn't enough. They, too, are beginning to use airplanes. But it is Stassen who has led the way in adopting the airplane to national political campaigning. By air, the entire country is in his backyard.

WAYNE W. PARRISH
AMERICAN AVIATION

Standard of California's

PLANE FAX



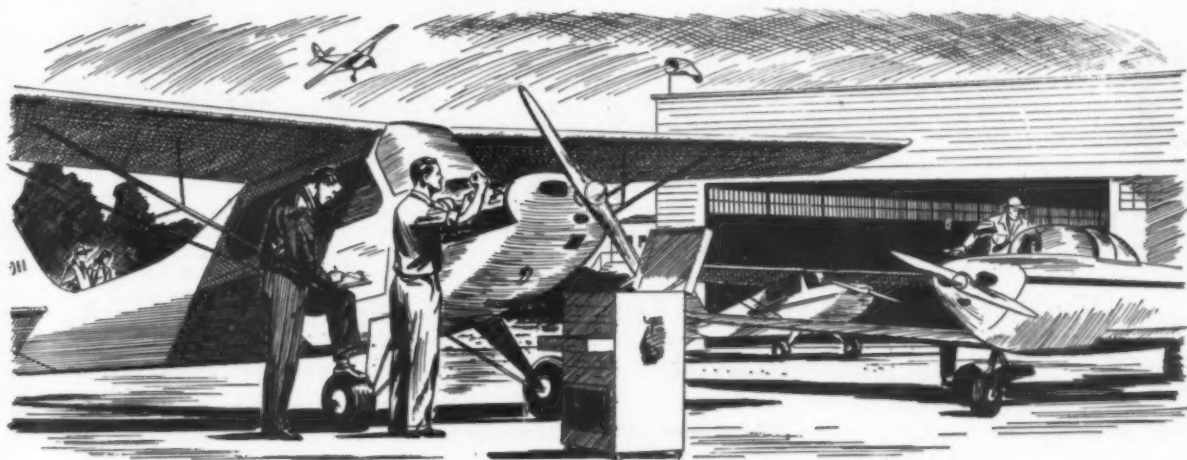
A page of service tips for private flyers and fixed-base operators

"RPM" cuts overhauls for Graham-Bell Aviation

M. F. Downer, manager of Graham-Bell Aviation Service, Albuquerque, N. M., reports greatly reduced maintenance costs since switching to RPM Aviation Oil and Chevron Aviation Gasoline. He says, "We had considerable trouble with 65 HP engines suffering from sticking valves and bad rings... had to pull major overhauls at about 250 hours.

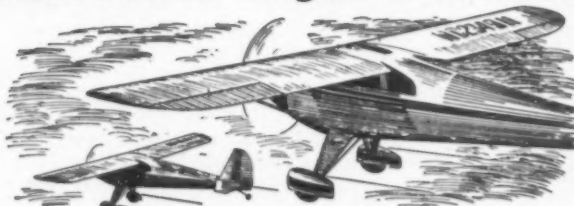
"We began using RPM Aviation Oils entirely. In check-

ing the log books, we found one new engine had run 738 hours... another had the first top overhaul at 804 hours, and one of the original engines which was overhauled at 160 hours has been running without trouble for 558 hours." Mr. Downer added, "From these facts and figures... I know Standard Oil products have given us excellent results, for which I am truly grateful."

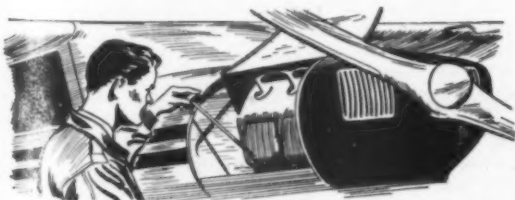


How to prevent stiff controls at high altitudes

In many instances, flyers find that aircraft controls stiffen at high altitudes. This is often due to the tendency of ordinary greases to become hard at low temperatures. That's why Standard of California has specially developed RPM Aviation Grease No. 1 to prevent it from stiffening in cold weather, yet stick to exposed parts at high speeds.



"Play safe - file a flight plan"



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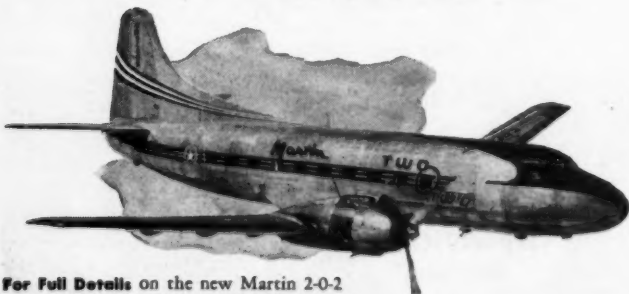


THE case of airline Y*

**Makes Good Reading for Cost-Conscious Executives
Concerned With the Problems of Tomorrow**

A Day's Earnings of *more than 3 times as much with one Martin 2-0-2 . . . as compared to possible earnings in the same period with a prewar twin-engine plane!* Yet the much faster 2-0-2's cost of operation per airplane mile is very little, if any, more than the prewar ship while carrying twice the payload!

That's a Typical Example of why Airline Y is enthusiastic about the new Martin 2-0-2. And why this modern luxury liner spells profitable operation for airlines everywhere.



For Full Details on the new Martin 2-0-2 . . . and the outstanding performance which has made it *the world's top twin-engine airliner* . . . write today to: The Glenn L. Martin Company, Baltimore 3, Md.

Additional Facts . . . Airline Y, a South American line, flew one Martin 2-0-2 *over the Andes 74 times* in less than four months of operation. The present schedule calls for flights of approximately 3150 and 1600 miles on alternate days . . . with a full payload; 36 passengers on the 2-0-2 as compared to 21 passengers on a prewar plane. Average use on the 2-0-2 has been about eight hours a day . . . a remarkable record since this airline does no night flying and seldom flies on Sunday. The Martin 2-0-2 has been crossing the Andes *when no other airplane could get across* . . . flying at 26,000 feet, over the top of the highest peaks and bad weather in the passes.

Martin AIRCRAFT

Builders of Dependable  Aircraft Since 1909

* Did you miss "The Case of Airline X"? We'll be happy to send you a copy.

BACKGROUND & TRENDS

Engineer Puzzler: Uncertainty about the new flight engineer regulation has not been relieved by official clarification. Some DC-6 operators, rather than take skilled mechanics off ground, where they are fully utilized, to give them flight duties of questioned utility, are considering sending reserve captains and co-pilots to flight engineer school.

Independence Wanted: CAB Chairman Joseph O'Connell, Jr., lost no time informing all concerned that the Board intends to resist pressures in deciding cases before it. At close of recent oral argument on PAA-Panagra-Braniff case, O'Connell chided both industry and the CAB staff on the matter of pressures: "Speaking for myself, and only partially facetiously, I would venture the pious hope that all of the members of the Board will be permitted to cogitate with respect to this question and come to its decision unaided by all of the people who would wish to aid, including even members of our own staff, unless we ask them."

Lower 'Floor' Wanted: Air freight carriers are expected to make early move for special CAB approval of certain commodity rates below the 13c per ton-mile minimum recently set by Board for shipments in excess of 1,000 ton miles. Samples are perishables, flowers, aircraft parts, and phonographs records. Special-rate freight thus far has been only means by which cargo carriers could combat their eastbound back-haul problem.

Political Fate: CAB Member Josh Lee will be slated to go if Republican party wins Presidential election next November. Senate approval of Russell B. Adams gives CAB three Democrats to two Republicans. Next term to expire (on Dec. 31, 1948) is that of Oswald Ryan, Republican. After that comes Lee's, a Democratic spot due to expire Dec. 31, 1949. If the Administration changes, Lee's membership becomes the first opportunity the Republicans will have to establish a majority on the Board.

Merger Prospect: Rumors of a Consolidated Vultee-Northrop merger are considered premature at this time. If a deal is made, Northrop would become independent subsidiary engaged solely in research work.

Abandonment: Consolidated Vultee is expected to abandon its flying automobile project.

CAA Gets SC-31: Defense Secretary Forrestal's recent disclosure that the important SC-31 air navigation traffic control program will be handled by CAA came as a surprise to many Washington observers who did not believe that the agency had yet been selected. There had been rumors that differences of opinion existed as to whether the program should be under CAA or Air Force control. Forrestal indicated that the program should be "so planned that in an emergency the military establishment could take over control immediately with no shift of personnel or change in equipment." New CAA Administrator Rentzel has been closely associated with SC-31 since its inception.

Convair Training: When Western Air Lines receives its first Convair-Liner it will send the plane to Ardmore, Okla., where American Airlines will conduct the flight training program for WAL pilots. WAL made the deal with American to train its pilots because of the advantages of the Ardmore setting. American has the mockups and other facilities for intensive training program, and WAL will be able to save some expenses.

Research Center: Armed services and CAB are preparing legislative proposal, soon to be submitted to Congress, for establishment of much-discussed research and engineering center. If okayed by Congress, the center would provide a central testing place for weapons of the future and eliminate costly duplication of developmental effort. Location favored is in northwest section of country, near limitless power source. Plans call for initial appropriation of \$300,000,000 to purchase site and begin construction, although total cost would probably run well over \$1,000,000,000.

Service Restored: By May 15 National Airlines will have resumed operations to all route points being served when its ALPA pilots went out on strike Feb. 3. Pre-strike number of flights are not being operated, however.

Which Side? Aviation circles are chuckling over a letter which Roscoe Turner, Indianapolis, wrote recently to a Minneapolis newspaper protesting new regulations restricting fixed base operators. "The whole trouble with aviation in this country is that the airlines have tried to take over the whole show to the exclusion of everyone else," he wrote. Roscoe is a fixed base operator himself, but he must have forgotten momentarily that he's also about to become an airline operator. He's now certificated for an airline in the midwest.

Busy Atlantic Airline: Best estimates indicate that there will be at least 120 round-trip airline schedules weekly between U. S. and Europe at peak of summer tourist season. This number does not include extra sections which several carriers will operate. Approximately one-third of total flights will be operated by foreign air carriers.

Up-to-Date: CAA registration cards covering aircraft ownership have extremely low "validity factor," according to cross check being made with state records. First to complete the check was Minnesota. Out of approximately 2,053 CAA certificated aircraft in that state, there was concurrence with state records in slightly more than 1,000 cases. The state had registered 145 aircraft not shown to be registered by CAA, and CAA records showed 884 registration cards for which there was no state registration. Spot check by Minnesota aviation officials showed that many of the 884 CAA registrations for which the state had no record involved aircraft demolished in accidents and aircraft sold out of the state as long ago as 1946.

Sky-High Cost: W. A. Patterson recently mentioned that the Boeing 247 airplanes which United Air Lines bought 15 years ago cost \$62,500. Each R-4360 engine in the new Boeing 377 will cost in neighborhood of \$50,000.

Nights Favored: Transcontinental travel habits are reverting to the pre-war preference for overnight flights. Most regular travelers have always preferred the smoother air at night, until the pressurized cabins of Constellations and DC-6's came along. With daylight flights at higher altitudes quite as smooth as night trips, most passengers turned to daytime schedules, and a year ago daylight load factors were consistently running ahead of night trips. Now, however, night flights are getting the loads, and airline traffic men point to the tightening pocketbook as the reason. Night air travelers avoid the extra hotel bill. This reversal in trend hit both American and United when they resumed DC-6 service first with daylight coast-to-coast schedules and had much lighter load factors than anticipated.



This bag helps water travel light

FOR maximum bomb and fuel capacity, designers of Convair's 139-ton B-36 wanted to trim every possible pound off its gross weight. One problem was to find a new material for the drinking water tanks—lighter than the metal used for standard tanks, yet strong enough to carry the load.

B. F. Goodrich engineers tackled the job. They found that light, tough Koroseal flexible material made an ideal water bag—carrying all the water needed for the 14-man crew at only one-seventh the weight of a metal tank!

There were still other advantages in using Koroseal flexible material. It doesn't affect the taste of the water as many tank linings do. It does not corrode. It is permanently waterproof. And it is tough enough to withstand severe sloshing effects. Koroseal water bags are now standard equipment on the B-36.

Carrying drinking water is only one of the many aviation jobs which Koroseal flexible material does so well. Its special properties have been put to good use in aileron seals, garbage bags, seat back bladders, and as

flame-resistant coating for materials used to line baggage compartments and pilot's cabins.

Koroseal flexible material was developed by B. F. Goodrich engineers. Their constant research has steadily improved it. And they are continually finding new, important applications. *The B. F. Goodrich Company, Aeronautical Division, Akron, Ohio.*

B.F. Goodrich
FIRST IN RUBBER

Passenger Volume Down From '47; Cargo Up 75%

By KEITH SAUNDERS

It wasn't the best first quarter traffic period that the nation's domestic trunkline air carriers went through during January, February and March. Fewer revenue passenger miles were flown than in the same quarter last year, passenger load factors were down, and the 16 principal carriers dropped something like \$12,000,000. Nevertheless, there were some bright spots.

On the basis of incomplete reports, revenue passenger miles flown by the 16 trunklines in the first quarter of this year totaled approximately 998,447,000, as compared to 1,031,139,000 in the same three months of 1947. This was an insignificant decrease, considering the extremely unfavorable weather of this January and February and in view of the disruption of National Airlines' service as a result of the ALPA pilots' strike. (March reports of Eastern, National, and United were not yet available at CAB, so totals used herein for these companies are for January-February for both 1947 and 1948.)

Most of the carriers reported a lower passenger volume this year, but sizable increases were indicated for TWA and Eastern and lesser ones for Colonial, Inland and Mid-Continent. And from the monetary standpoint, it was more than probable that passenger revenues of all the carriers were substantially above those for the first quarter of last year, fares being about 20% higher, on the average, this year.

Passenger load factors of the 16 carriers averaged 55.8% through March of this year, as against 58.6% for the 1947 first quarter. Some of the airlines saw their load factors drop as much as 10 or 15 percentage points, but for most the drop was only from one to three points. Capital Airlines' average load factor for the quarter was up 2.2 percentage points—from 43.6% to 45.8%—but was still far below the break-even point.

In categories of traffic other than passengers, the results were better. Cargo volume reported by the 16 carriers (and this included both freight and express) aggregated 17,806,000 ton miles, as against 10,290,000 in the comparable quarter last year. This was an increase of approximately 75%, and there have been no indications of any slackening of demand in this field. All carriers showed gains in cargo volume, with United, TWA, American, Eastern and Capital well out in front.

Mail volume was spotty, being up for some carriers and down for others, with an over-all increase of about 375,000 ton miles for the 16 airlines. This was encouraging, for mail loads through all of 1947 and most of 1946 had been dropping steadily after reaching an all-time peak in the last year of the war.

Fiscally, the 16 carriers sustained a net operating loss of about \$10,000,000 in January and February, and it was probable that March results would increase this to about \$12.5 millions. The only consolation in this was the fact that it represented a better than 50% improvement over the disastrous first quarter of 1947, when the domestic trunklines lost over \$18,000,000.

A reasoned appraisal of the first quarter's operating results revealed causes for some optimism. Cargo volume is on the upward trend, and is hardly likely to diminish much, if any, when higher minimum tariffs go into effect, as now appears certain. Cargo revenues for the year should be well above those of 1947. Air mail volume seems to be picking up a little, and many carriers will reap the benefits of increased mail pay rates during the remainder of the year.

Passenger traffic just about held its own in the first quarter, but there already are signs that April and May passenger volume of most of the 16 airlines may run ahead of last year's traffic

for same period, and what may become the biggest vacation travel season in history is just ahead. With passenger volume at least equaling and perhaps exceeding that of last year for the remainder of 1948, the higher fares now in effect should boost passenger revenues of the airlines by millions of dollars.

While operating results of the last three quarters may not wipe out the losses of the first quarter, there was good reason to hope that the 1948 record would reflect a great improvement over that of last year.

Cohu Resigns from TWA

When LaMotte T. Cohu took over the presidency of Trans World Airline on April 24, 1947, he indicated he would hold the job only long enough to reorganize the company and get it rolling along in better financial and operating shape. At the end of a year he decided his work was done. Just a few days after being re-elected on April 23, he tendered his resignation, to become effective in late May.

During his tenure of office, TWA's payroll had been trimmed, morale of employees had been raised, and a pay-as-you-go record had been produced. The airline had an improved dollar position, an increased profit potential, and a steadily improving record of reliability. Operating efficiency had been increased through a concentrated cost reduction program and consolidation of the company's transcontinental and international divisions. For every dollar of indebtedness, TWA had \$1.62 in current assets at the end of 1947, as against 94c at the end of 1946. Cohu felt that

First Quarter Domestic Airline Traffic

Airline	Rev. Pass. Miles		Cargo Ton-Miles*		Mail Ton-Miles		Pass. Load Factors	
	1948	1947	1948	1947	1948	1947	1948	1947
	(000 omitted)	(000 omitted)	(000 omitted)	(000 omitted)	(000 omitted)	(000 omitted)		
American ...	224,520	275,455	5,405	2,954	1,413	1,762	57.8%	64.4%
Braniff	39,965	43,605	463	253	223	184	51.2%	60.0%
Capital	48,500	50,364	1,461	933	192	171	45.8%	43.6%
C & S	21,376	23,191	268	194	90	90	53.4%	53.7%
Colonial	6,687	6,535	17	11	19	19	57.7%	60.4%
Continental ..	11,275	12,006	66	47	39	60	45.3%	51.8%
Delta	43,791	51,667	559	303	244	180	48.6%	65.5%
Eastern** ..	170,632	138,795	1,341	773	623	578	59.8%	60.0%
Inland	5,598	4,420	26	8	22	16	51.3%	51.8%
MCA	18,233	13,041	80	40	61	51	55.9%	61.9%
National** ..	12,263	29,423	233	150	37	109	51.7%	68.7%
Northeast ...	8,943	12,668	76	29	13	13	39.2%	43.7%
Northwest ..	57,234	63,454	693	474	527	494	52.1%	56.3%
TWA	183,271	138,557	3,464	1,945	2,559	1,688	58.3%	59.8%
United** ..	122,072	129,362	3,417	1,973	1,181	1,383	60.0%	60.5%
Western	24,087	38,590	228	203	86	181	51.2%	54.9%
TOTALS	998,447	1,031,139	17,806	10,290	7,350	6,979	55.8%	58.6%

* Includes both express and freight

** Traffic through February only

he had done a good job for TWA, and that the company was now in a position to move ahead with other hands at the tiller.

A week ago, Floyd B. Odlum, chairman of the board of Consolidated Vultee Aircraft Corp., dispelled all rumors as to what Cohu's next job would be. Said Odlum:

"I have expressed my desire to have LaMotte Cohu come to the Convair organization as president and chief executive officer, and Mr. Cohu has stated his willingness to do so. This is as far as the matter has gone to date. None of the details have been discussed. Such employment has not been submitted to the Convair board . . . I did get Mr. (President) Harry Woodhead's full approval as well as the approval of a few of the other directors. There is little doubt in my mind that all necessary further action will be taken and that Convair will have the benefit of Mr. Cohu's services within a few weeks." Woodhead had been in ill health, he said, and wished to be relieved of the full-time duties of president of the company.

"The times that the aircraft industry is passing through require that Convair now have a hard-hitting, experienced chief executive like Mr. Cohu," he said. "Mr. Woodhead will continue to serve in a senior position of dignity and responsibility . . . within the limits of his physical strength . . ."

Odlum said he would ask the directors to make the new president the chief executive in charge of operations, and that he, as chairman of the board, would be a part-time officer in charge of major policies and special matters. Paired with Cohu and complementing his capacities would be I. M. Laddon, Convair's executive vice president and one of the industry's top engineers.

Meanwhile, there had been no announcement as to Cohu's successor at TWA, although John Collings, executive v. p., was mentioned as a likely choice. Warren Lee Pierson was expected to remain as chairman of the board.

NEW ROUTE CASES

CAB Upholds Braniff Route

In a strongly-worded decision that approached a new record for rapid action, the Civil Aeronautics Board on May 3 gave a resounding vote of confidence to Braniff Airways' soon-to-be-inaugurated Latin American route. CAB upheld the certificate granted Braniff in 1946 against petitions filed last fall by Pan American Airways and its affiliate Pan American-Grace which asked the Board to suspend the certificate for five years or make major changes in the pattern.

The decision, coming less than 100 hours after oral argument in the case had ended, found that PAA and Panagra had made no showing of changed facts or circumstances or the existence of

new evidence to warrant any retrial of the certificate.

In dismissing the petitions without public hearing, CAB declared that "the institution of proceedings of the character sought by the petitioners would cast a dark shadow across the certificate already lawfully issued to Braniff and in full force and effect, and would therefore seriously hamper and prejudice the inauguration and development of certificated service previously found to be in the national interest."

To PAA's charge that estimated mail costs of the Braniff route are much higher than when the grant was made, the Board pointed out that "the Braniff service is far from unique in this respect." Likewise, CAB maintained, the long term objectives of the route should not be sacrificed because temporarily it can not be inaugurated in its entirety due to lack of landing rights. It re-

minded PAA and Panagra that their routes "were established only after many years of effort and expenditure of large sums in the form of mail-pay subsidy."

The opinion was unanimous—O'Connell, Lee and Jones. Ryan did not take part.

A complete history of events leading up to and following the route award to Braniff—including President Truman's letter to CAB ordering modifications of the Latin American decision—was sent to Sen. Guy Cordon (R., Ore.) on May 6 by CAB Chairman O'Connell. The material was requested by the Senate Committee on Appropriations subcommittee headed by Cordon, as outgrowth of hearing held April 16 at which an appropriation for mail pay for the route to Lima, Peru, was questioned.

Starts June 4. Four days after re-approval of the route by CAB, T. E.

AMERICAN AVIATION



Braniff Convertible—

A new kind of accommodations, in addition to DC-6 service, will be offered by Braniff Airways when flights are inaugurated to Lima, Peru, early in June. Reduced passenger rates will be available on a Douglas DC-4, especially designed to convert quickly from a cargo ship to a comfortable passenger plane, or a combination of both simultaneously. Planned and converted by Braniff's engineering and maintenance staffs, the plane is intended to solve the problem of heavy southbound cargo traffic as contrasted to lighter loads moving into the U. S.

Individual upholstered leather seats fold back against sides of the fuselage to provide cargo space which is separated from passenger section by curtains. Carpeted floors have transverse seams, so the entire sections can be converted to cargo flooring within a few minutes.

Two cabin attendants will be aboard all flights and complimentary meals will be included in the special tourist rate.



Top view shows how interior may look with good passenger load on northbound trips. That the seats are regular upholstered type, and not a bucket-seat variety, is shown in lower view.

Braniff, president, announced that the airline would inaugurate its Latin America service on June 4, the first scheduled flight leaving Chicago for Lima, Peru, via the Houston gateway. First return trip to the U. S. will arrive in Houston on June 7.

Three round-trip flights weekly with three types of services will be available between U. S. and Cuba, the Canal Zone, Ecuador and Peru. A 25% reduction on special tourist service, DC-6 sleeper flights "at the most equitable rates ever offered by an airline," and reductions on round-trips are features of the new tariff.

Both berth and sleeping chair service will be offered on DC-6 flights. For sleeper service, a flat fee of \$25 per night will be charged for upper berths. For passengers choosing regular DC-6 rates, push-button seats for lounging can be curtained off into private compartments.

Representative of passenger fares for major U. S. cities are those from Chicago to the four Latin points: to Havana, \$116; to Balboa, \$195; to Guayaquil, \$310; to Lima, \$395.

The tourist service—new to scheduled air transport—is designed to solve the problem of heavy southbound cargo traffic contrasted to lighter freight loads moving into the U. S. The DC-4 tourist plane is convertible within a few minutes from cargo to passenger transport, or combination of both.

AA Asks Breathing Spell

In the two and one-half years that had elapsed since V-J Day, the Civil Aeronautics Board had issued certificates to a dozen new carriers and had added thousands of miles to the routes of existing airlines. Meanwhile, the airlines had taken two successive thumping losses (nearly \$10 millions in 1946 and over \$20 millions in 1947) and demands for increased mail pay were becoming increasingly clamorous. American Airlines thought it was time for "an overall appraisal of the industry by the Board."

A motion filed by American in the Southern Transcontinental Route Case asked that any further action on this case be deferred until January, 1949, and suggested that CAB take a "breathing spell" in which to measure the real consequences of the route expansion of the last few years and make accurate traffic surveys on which to base cost analyses.

Pointing out that Section 415 of the Civil Aeronautics Act empowers CAB to require into air carrier managements and that the Board is "well equipped to conduct a real investigation and make a real appraisal of the conditions and needs of the industry," American found it odd that no such investigation and appraisal had ever been made. It would be a grave error, the petitioner held, for CAB to proceed with new route cases lacking such an overall study, inasmuch as route grants obligate carriers



Arinc President— R. O. Smith, who has been v. p. of Aeronautical Radio, Inc., has been named Arinc president to succeed Del Rentzel, now CAA administrator. Smith has been in air transport industry since 1928, when he joined communications department of National Air Transport. Later he was with Eastern Air Lines, and in 1934 became superintendent of communications for Pennsylvania-Central Airlines. He has been a director of Arinc since 1941, was elected v. p. and treasurer in 1943.

to perform service and likewise obligate the public to support it through mail pay.

"It is impossible to understand how an agency upon which Congress conferred quasi-legislative power in order to get expert and informed judgment can deal with new route problems of such abiding significance without the benefit of a single comprehensive traffic survey of any real value," American said, adding that CAB route decisions frequently are based on "out-of-date data" and on "general assumptions not adequately tested by experience."

American pointed out that this "course of decision, coupled with the critical financial condition of the industry" had led the President's Air Policy Commission this spring to call for "a comprehensive survey of the present situation and the development of a more cohesive policy." Another suggestion in the motion was that a breathing spell would afford an opportunity to accumulate operating experience with new equipment, such as the DC-6, the Convair Liner and the Martin 2-0-2. AA said that it would be "wholly unrealistic to decide a Convair case on a DC-3 record," that new aircraft operating factors should be determined before further route applications were approved.

PO's Skepticism of Feeders

With 10 feeder airlines already operating under temporary three-year certificates, would the added experience

bearing on the experiment that would be acquired through certification of another regional carrier at this time be worth the added expense involved? The Postmaster General asked the question, and it was up to the CAB to answer.

What brought the matter up was the petition of the Iowa Airplane Co. for issuance to it of the feeder route certificate provisionally awarded it in the North Central Case Decision of Dec. 31, 1946. Postmaster General promptly asked that a public hearing be held on the petition. He said:

"Before another feeder route is superimposed on the nation's air transport system with the consequent additional drain upon the public treasury through the medium of mail pay," he said, "it is respectfully submitted that changed conditions (since 1946) . . . require a re-examination in the light of today's facts as to whether the public convenience and necessity require the issuance of a temporary certificate at this time to the Iowa Airplane Co., and inherent in this question is the question of whether the company should be allowed to inaugurate an operation which brings new service to only nine new points."

He was particularly concerned over the fact that service to most of IAC's certificated route points would be in direct competition with established carriers, particularly with Mid-Continent Airlines, which already is a "need" carrier.

Alaskan Route Approved

Robert C. Reeve, doing business as Reeve Airways, has been issued a certificate by CAB authorizing service between Anchorage, Alaska, and islands in the Aleutian chain. Points on the route are Cold Bay, Dutch Harbor, Umnak Island, Atka Island, Adak Island, Amchitka Island, Shemya Island, and terminal Attu Island. Authorization to serve the Pribilof Islands on an irregular route was included. Reeve operates one Boeing 80-A, three DC-3's, two Fairchild 71's, and one Vultee basic trainer.

RATES & TARIFFS

Excursion Fares Suspended

Excursion fares offering round-trips at 125% of one-way fares may not only prove financially harmful to the two carriers directly involved but would also threaten disruptive effects for the entire industry, CAB ruled on April 30 in suspending proposed tariffs of Eastern Air Lines and National Airlines. The suspensions, with investigation to follow, were ordered upon complaints by Delta Air Lines and Capital Airlines. CAB action came only eight hours before the tariffs were to take effect.

The suspensions are for 90 days or until July 29 in case of NAL's specific point excursion fare tariff and EAL's tariff matching the former's proposal. EAL's systemwide reduced fare tariff, which was not to take effect until May

19, will be suspended from that date until Aug. 16.

CAB explained that the tariffs may be unjustly discriminatory, or unduly preferential, in that service to be provided under them "at materially reduced rates is substantially the same as that furnished under National's and Eastern's regular fares." It also stated that the tariffs might be unreasonable in that "the revenue yield to be derived from such fares may be substantially less than required to cover the proper costs of such service."

Delta, Eastern, National, and Capital were made parties to the forthcoming hearings.

World-Wide Tariff

Just because much older systems of transportation had never gotten around to issuing a world-wide tariff, the International Air Transport Association, representing some 70 air carriers operating under 45 national flags, saw no reason why it couldn't be done. So IATA's Executive Committee, holding its semi-annual meeting in Montreal, authorized issuance of such a tariff.

As a preliminary step toward publication of a complete series of tariffs covering the services of all IATA member airlines, the committee approved plans for compilation of a universal rules tariff for international air carriers and a joint tariff for North Atlantic fares. The rules tariff, which is an official and legally binding statement of provisions for refunds, baggage charges, stopover limitations, and the like, will be the first ever issued to cover the operations of all carriers on a world-wide transport system.

Completion of the two volumes is expected this year. The project will be self-sustaining through sales of the tariffs to member airlines.

Airlines Cut Orient Fares

Travel in the Orient since the war has been exceedingly difficult except by air, and that mode of travel has been fairly expensive. Recently, the two U. S. carriers serving the Far East moved to boost inter-Orient travel by reducing fares.

Pan American Airways touched off the move in late April with the announcement that, effective May 15, it would institute fare reductions up to 20% between Manila and Hong Kong and Manila and Shanghai, and a special 30-day excursion fare \$85 below the regular round-trip tariff between Tokyo and Hong Kong. A week later, Northwest Airlines made its move.

Also effective May 15, NWA announced that one-way and round-trip fares between Tokyo and Seoul would be cut from \$108 and \$194 to \$81 and \$145.80; Tokyo-Shanghai from \$162 and \$291 to \$133 and \$239.40; Tokyo-Okinawa from \$162 and \$291.60 to \$162 and \$239.40; Tokyo-Manila from \$336 and \$640.80 to \$262 and \$471.60.

Insurance Based on Payload

A new type of insurance for airlines with the premium based on revenue passenger mileage so that insurance cost is geared to the payload, has been announced by Stewart, Smith & Co., London and New York. A three-year contract without cancellation on either side has been signed jointly with Scandinavian Airlines System, and the Swedish, Norwegian, Danish and Finnish airlines.

The insurance covers the respective airlines for all damage to the aircraft and includes property damage, public liability, passenger liability and liability to cargo freight, mail and baggage. There is a single limit over hull and liabilities of 10,000,000 Swedish crowns (about \$3,000,000) for any one accident or occurrence. The premium amounts to about \$1.20 for each thousand revenue passenger miles. The minimum premium will be approximately 3% for the full comprehensive and liability cover and the maximum premium is 4%.

Additions to the fleet are automatically covered and affect the minimum premium only by the addition of pro rata of 3% of the value. The premium is payable in nine installments spread over three years. The contract is in any currency required, even dollars and sterling. Jurisdiction is in the country of origin. There is a 10% contingent calculated on each year separately and for each airline.

Objective of the new plan, said to be one of the biggest insurance deals in airline history, is to gear insurance cost to actual revenue, and in a single contract covering every loss that an airline can suffer. The premium is said to be exceptionally low and made possible partly because five airlines are involved. It is said to operate simply, there being an adjustment at each year's end on passenger mileage only.

Atlas to Yield NEA Control

Common control of Northeast Airlines and Consolidated Vultee Aircraft Corp. by the Atlas Corp. is not consistent with the public interest, CAB ruled late last month in ordering Atlas to dispose of all but 3% of its common and preferred stockholdings in the airline. As of mid-March, Atlas held 92.4% of NEA's convertible preferred stock, 20% of NEA's outstanding common shares.

Atlas' control of Convair was approved subject to the divestment conditions imposed for the NEA stock interest.

CAB allowed 18 months for sale of the NEA holdings, which may not be sold to any person, firm or corporation controlled by or controlling Atlas. In the interim, Atlas may vote its NEA shares only with CAB approval. It may have not more than two members on NEA's board at any time, and after divestment, may have no representative on the board.

Atlas owns 131,900 shares (11.4%) of the 1,159,849 outstanding shares of Convair's common stock making it the largest holder. Floyd B. Odium, president and a director of Atlas, is also chairman of the board of Consolidated.

Beech in Black

With a backlog of approximately \$16,000,000 and an unaudited net income of \$676,480 after provision for taxes in the six months ended Mar. 31, Beech Aircraft Corp. last month was looking to the future "with confidence because of the diversification of (its) aircraft business." The six-month earnings, equal to \$1.70 per share on capital stock, compare with a loss of \$1,368,652 in same period of previous fiscal year and represent 5.4% of net sales amounting to \$12,611,524 from Oct. 1, 1947 to last Mar. 31.

Walter H. Beech, president, expressed hope that large appropriations for new aircraft for the armed services undoubtedly will bring additional business to the company.

He indicated that the company would soon be in position to guarantee performance and weight specifications for the Model 34 twin-quad transport, and that orders would be solicited at that time from airlines which have already shown interest in the plane.

Slight Douglas Profit

Douglas Aircraft Co. has reported net income of \$23,862, equal to 4c per share of common stock, for first three months of the 1948 fiscal year ended Feb. 28. These nominal earnings on sales of \$15,251,568 compared with a net loss of \$107,109 on sales of \$15,981,164 in the first three months of 1947.

Douglas reported the Apr. 1 backlog at \$158,943,000 compared to \$152,044,000 at the beginning of the fiscal year. New orders received during the first quarter of 1948 totaled \$11,207,000. The backlog is approximately 20% commercial and the balance military, mainly Navy.

Working capital improved from \$55,521,052 at the 1947 fiscal year end to \$56,230,528 at Feb. 29. Cash account increased to above \$21,400,000 at the quarter end as compared to \$16,875,000 at Nov. 30, 1947.

Court Rules Against ALPA

The U. S. Court of Appeals has ruled against the Air Line Pilots Association in connection with the union's efforts to block payments to National Airlines for carrying U. S. mail. In an order granting motions of NAL to dismiss the petition to stay payment pending a review of CAB's action in granting the airline air mail pay, the court decree cited "failure of petitioner (ALPA) to disclose a substantial interest in the order sought to be reviewed."

Mail payment in question was for service dating back to middle of last

summer when NAL asked a temporary rate pending final decision on permanent rates. ALPA contended that under the terms of CAB's order, money paid the airline for carrying U. S. mail was being used to break the strike of ALPA pilots through payment of some part of these funds to non-union pilots now flying for the airline.

ALPA has filed two suits against NAL in the New York State Supreme Court—one for damages amounting to \$1,000,000 "for causing a strike of its pilots," the other naming striking pilots as plaintiffs in a suit asking payment of "all wages and money due the pilots for their services." The complaint points out that NAL has failed to abide by provisions of the Railway Labor Act, cites the company's alleged breach of agreement made with ALPA, and charges non-cooperation with the National Mediation Board and violations of certain sections of the Civil Aeronautics Act.

HQ Backs Boeing Strike

After a field investigation by a committee of three vice presidents of the International Association of Machinists, the national headquarters of the union decided to endorse and support the strike of 14,000 member-employees against Boeing Airplane Co., according to Harvey Brown, IAM president. At first, headquarters was understood to have labeled the walkout a "wildcat" strike.

Dispatches from Seattle said Boeing had rejected a government invitation to renew negotiations with the union under federal sponsorship. The local, which struck on April 22, is demanding a 30c an hour pay boost, with the company offering 15c.

The Aero Mechanics Union on April 29 ran a full four-column advertisement in a Seattle newspaper charging that common laborers there receive as high as \$1.87 per hour while the average wage for Boeing employees is \$1.34 an hour.

Meanwhile, William M. Allen, Boeing president, has hinted that the company might move its plant out of Seattle. Commenting on the strike, he said: "Boeing will continue to build planes—if not in Seattle, then somewhere else." He did not elaborate. It has been reported that the company has been under pressure to move the Seattle plant to some inland location, less vulnerable to air attack.

Boeing charged that two-thirds of the present union membership had not voted to strike, that the strike vote was taken by the local in May, 1947.

EAL Retirement Plan

A retirement income plan for employees of Eastern Air Lines was approved by stockholders April 27. The plan applies to every employee after three years of continuous service and provides a normal retirement age of 60 years for flight captains and co-pilots, 65 years for other employees.

Both the company and employees will

May 15, 1948



Chief Pilots Meet—One of the infrequent meetings of airline chief pilots was held at the Wardman Park Hotel, Washington D. C., May 4-6, to discuss current operational problems. Left to right, seated, are: Harry Campbell, TWA superintendent of flying, Atlantic region; Milton W. Arnold, v.p.-operations and engineering of Air Transport Association; W. E. Larned, superintendent of flying, United Air Lines; and H. Hopson, chief pilot, Trans-Canada Air Lines. Standing: J. H. Mack, assistant chief pilot of PAA's Pacific Alaska Division; E. J. Kershaw, v.p.-operations, National Airlines; and Jim Craig, chief pilot, American Overseas Airlines.

contribute to the pension fund, but credit for past years of service will be paid entirely by the company at cost estimated to exceed \$2,500,000.

AIR MAIL

Air Mail & Dollar Balances

U. S. carriers operating overseas have noticed in recent months an increasing diversion of U. S.-bound mail out of foreign countries to foreign-flag airlines who could not deliver it as quickly as the American flag carriers. Last month, Second Assistant Postmaster General Paul Aiken thought he had discovered what was happening.

Aiken suspected that some nations have been unduly favoring their own national carriers in order to build dollar balances, rather than dispatching mail on the most expeditious schedules, regardless of the carrier's nationality, and he made known his disapproval of such practices in a speech before the provisional executive and liaison committee of the Universal Postal Union at Berne, Switzerland.

The U. S. Post Office Department, Aiken said, believes that foreign nations should use their own carriers where possible, but not to the extent that mail is delayed. In other words, if a U. S. carrier is leaving for the U. S. on Tuesday it should carry the available mail, rather than have that mail wait until Wednesday for the local carrier.

Here's what can happen and probably has been happening, he pointed out. If a foreign national forwards international

air mail on a U. S. carrier it pays that carrier the universally-accepted rate of \$2.86 a ton mile, which is the same rate its national carrier receives for carrying U. S. mail. By holding mail for its own national carrier, the nation can save this payment, and by receiving more from U. S. mail than it pays out to U. S. carriers for carrying its own mail, it can build up its dollar balance.

The U. S. Post Office, Aiken said, "felt that it would be sheer stupidity to sit idly by and allow this situation to be aggravated to the place where the revenues of our international carriers are gravely diminished, and with them a like diminution of the prestige and friendly basis on which our carriers operate."

He warned that where other nations are found to be guilty of such practices, the Post Office "intends to most carefully re-examine its entire postal relationship with such countries."

'Big 5' Rates in Effect

Temporary mail pay rates proposed for the "Big Five" airlines early last month (AMERICAN AVIATION, April 15, p. 14) were ordered into effect by CAB on May 7. Carriers affected by the mail pay boosts are American, Eastern, Northwest, TWA, and United.

CAB authorized payments, after a period of 10 days, by the Post Office for domestic operations of the five companies, plus overseas operations of Eastern, American, and United.

Issuance of the temporary rates was premised on a finding that TWA and United "are in a critical financial con-

dition;" action on all five is in keeping with CAB's intention to treat them as a group for rate purposes.

Chicago Helicopter Service

Chicago would become the scene of an experimental mail helicopter service, similar to that in operation in the Los Angeles area since last year, if CAB adopts the recommendation made on May 4 by Examiner Ferdinand D. Moran. Operator of the proposed 305-mile route would be Helicopter Air Service, Inc., 105 West Adams St., Chicago.

Moran recommended denial of similar applications in the Chicago Helicopter Service Case filed by United Air Lines and Anderson Air Activities.

The examiner found all companies equally well-fitted to handle the proposed service, but declared that of the three HAS was "the only one which offers the undivided attention of a single management able to devote its energies entirely to the problems and responsibilities of conducting the experiment and developing its maximum potential."

United's application was rejected by Moran largely on grounds that (1) it would not integrate with that company's conventional airline service; (2) the experiment's value as a cost yardstick would be made difficult to measure under UAL operation because overhead and other cost allocations would be necessary; (3) the expansion of the mail and express helicopter operations to include passenger service might be retarded under UAL's management because of that company's position with other trunkline carriers in Chicago.

HAS was favored over Anderson since it has acquired actual operating experience whereas the latter has not. Another mark against Anderson was the fact that its sphere of interest is centered in Milwaukee.

In keeping with recommendation made by the President's Air Policy Commission, Moran suggested that the certificate be issued for five years. It would include an exemption order allowing the holder to serve with rotary-wing aircraft any point within 50 miles of Chicago Municipal Airport.

The route recommended follows proposals worked out by the Post Office Dept. after its helicopter mail experiments in the area: (1) a loop north of Chicago to Waukegan; (2) a loop west to Elgin and Aurora; (3) a loop south to Joliet and Gary; (4) an airport-to-Post Office shuttle.

Cost of Helicopter Mail

In establishing its 356 miles of airways and 32 heliports while setting up operation of the world's first helicopter air mail route, Los Angeles Airways encountered little expense. This picture will change, however, as the company expands into full-scale operation.

Topping the list of new costs which will have to be entered on the L. A. Airways ledgers will be airway lighting,

communications and other navigational aids for night flying. The Post Office Department has requested night schedules on all segments of the company's Route 84 in order to bring full benefit of the helicopter air mail service to the approximately 5,000,000 people in the area served, and L. A. Airways is now making its plans to inaugurate the expansion.

Clarence Belinn, president, estimates the total cost of airways lighting will be at least \$20,000. It is contemplated that a portion of the night flying aids will be completed this year and the balance in 1949. After they are installed the expense of maintaining them will develop. This new maintenance expense item will amount to at least \$500 a month, Belinn estimates.

Moreover, heliport rentals probably will go up with the introduction of night flying. L. A. Airways was able to acquire the use of both public and private property for use as heliports on a purely nominal rental basis through the cooperation of civic interests anxious to have their communities on the helicopter routes. It is inevitable that the pocketbook will win out over civic pride eventually. In addition, the improvement of heliports with lighting and other night flying aids will make longer leases desirable. Belinn figures that for the present 32 heliports an increase of \$25 per month per heliport is highly likely, making an additional monthly expense increase of \$800.

So far L. A. Airways has had virtually no heliport maintenance expense. But fences are beginning to show some signs of wear, largely through damage caused by interested bystanders putting their weight on them as they watched the whirligigs bring in the mail. To date, the company has had no need to expend more than the original cost on surfaces for the heliports, but maintenance of the surfacing definitely will become as appreciable item in the future.

In setting up a communications system, L. A. Airways expects to install approximately 20 ground stations. Most of them can be put in post offices on the routes.

The helicopter line recently petitioned the Civil Aeronautics Board for a "break-even need" mail route of \$1.65 per aircraft mile up to 35,532 miles per month and 75c per aircraft mile for all over that figure. When it adds night flying on all segments it expects to schedule 35,532 miles per month. Its temporary rate of mail compensation has been \$1 per aircraft mile for the first 22,000 miles and 60c per aircraft mile for all excess mileage. On its daylight flights it has been scheduling approximately 17,000 miles per month.

Star Route: The Post Office Dept. has annulled the contract for boat mail service between Seward, Alaska, and points in the Aleutians, and has entered into a Star Route contract with Reeve

Airways for Anchorage-Aleutians service. A Post Office official said the boat contract was annulled for "unsatisfactory performance of service." Reeve will operate 30 trips a year, carrying up to 3,600 lbs. of mail (all classes) per trip. It will receive \$39,000 yearly.

ECONOMIC REGULATION

Int'l Passenger Authority

On the theory that few people would be interested in flying down to Mexico City or over to Cuba in a four-place airplane when scheduled service was available via a comfortable four-engined airliner, the CAB is proposing an amendment to Economic Regulation 292.1 which would authorize irregular Air Carriers utilizing only small aircraft to engage in foreign air transportation of persons.

When the regulation was written, the Board had in mind prohibiting the irregular carriers from offering similar services (i.e., with conventional large transport planes) as were offered by certificated international airlines. Since 292.1 was issued, several exemption orders authorizing irregular passenger service carrying sportsmen to Canada have been issued by CAB, which views the competitive aspects of such authorizations as being "very minor."

The amendment now proposed (May 6 was the deadline for comment) defines a small irregular carrier as one who does not operate any aircraft over 10,000 pounds gross take-off weight for any single unit, nor over 25,000 pounds for the total of such aircraft units as exceed 6,000 pounds each. It pointed out that operational considerations would limit such irregular service to "Canada and Mexico (and possible contiguous land areas to the south thereof, if anyone wished to venture so far in a small plane) and perhaps Cuba."

CAB CALENDAR

May 24—Hearing in Board proceeding relating to Gander (Newfoundland) fares contained in joint Conference Resolution No. J T. 12/081 (Agreement C. A. B. No. 1539R4) of IATA Conferences Nos. 1 and 2. Examiner Herbert K. Bryan.

May 26—Hearing in All America Aviation Route 49 Suspension Case. (Dockets 2918 and 3293). Examiner Warren E. Baker.

June 23—Hearing on CAB's Investigation of Fare Differentials in Pan American Airways' Miami-San Juan, Miami-St. Thomas Tariffs. (Docket 3274). Examiner Frank A. Law, Jr.

June 28—Hearing on proposals of Pan American Airways for consolidation of its Pacific route certificates. (Docket 2953 et al.) Examiner Ralph L. Wiser. Place and hour to be announced.

July 12—Hearing in Pennsylvania-Central Airlines Mail Rate Case. (Docket 484). Postponed from June 14. Examiner Ralph L. Wiser. Tentative.

July 12—Hearing on application of National Airlines for authority to operate non-stop between Havana and any point on carrier's domestic Route 31. (Docket 2967). Examiner F. Merritt Shulen. Place and hour to be announced.

Aug. 2—Hearing in the Free and Reduced-Rate Transportation Case. (Docket 2737 et al.) Examiner Barron Fredricks. Place and hour to be announced.

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GEORGIA

Hapeville, Aviation Supply Corp.,
Atlanta Municipal Airport

ILLINOIS

Chicago, Snyder Aircraft Corp.,
5315 W. 63rd St.

KANSAS

Kansas City, Pacific Airmotive Corp.,
Hangar #5, Fairfax Airport
Wichita, The S. A. Long Co., Inc.,
650 E. Gilbert

KENTUCKY

Louisville 4, Ellingsworth Auto Electric
Co., 1003-05 E. Broadway

MASSACHUSETTS

East Boston, Inter-City Aviation, Inc.,
Boston Municipal Airport

MICHIGAN

Detroit 5, Servair, Inc., Detroit City
Airport

MINNESOTA

Minneapolis 6, Airwings, Inc., Wald-
Chamberlain Field

NEW YORK

Buffalo, Buffalo Aeronautical Corp.,
Buffalo Airport
Mineola, L. I., Standard Aircraft
Equipment Co., Roosevelt Field

OHIO

Cleveland, General Airmotive Corp.,
Municipal Airport

TEXAS

Dallas, Southwest Airmotive Co.,
3416 Love Field Drive

WASHINGTON

Seattle, Pacific Airmotive Corp.,
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PETERBORO, NEW JERSEY



True Feederline in Florida

By WAYNE W. PARRISH

It is very unlikely that there is any other airline like Florida Airways.

It is perhaps the only airline in the country that can truly call itself a feeder.

It's only 475 miles long serving 11 towns and cities.

Its stations average only 40 miles apart. During a recent check period it discovered that the average length of haul it sold per passenger was 398 miles, although the average length of haul on Florida Airways itself was only 121 miles. Fifty-four per cent of its dollar business is interline, and 47% of the passengers are connecting with other carriers.

Florida has been operating more than a year now with twin-engined Beech 18C-T transports, each of which carries eight passengers and a crew of two. It has five airplanes in service and its headquarters is in Orlando. The company operates three routes of about 150 miles length each. It is the only scheduled passenger airline in the U. S. flying Beech transports.

A few weeks ago I made the complete circuit of the airline between 7 in the morning and 4 in the afternoon, with two layovers of an hour and a half each. That meant 14 landings and take-offs because I had to double back on one segment. The shortest hop is 15 minutes, the longest is 35. You're either going up or coming down—it's really a sort of grasshopper service connecting the cities and towns of a prosperous state.

Different. Florida Airways is different from many of the other new airlines in many respects. First of all, it started out with a minimum of experienced personnel. There was only one station personnel that had ever been with an airline before. But with 92 on the payroll today the company now has 184 years of airline experience.

Its president is the youngest in the airlines. Joe Dyer at 29 knows a lot about airplanes and he's proving pretty well that he can tackle airline problems. He has his hands full of them, because Florida has had more than its share of financial troubles.

At three of the 11 stations there are women in charge. At Sanford, just 15 minutes flying time from Orlando, the station manager is attractive Mrs. Dorothy Fox. At St. Augustine the station agent is Mrs. Mildred Dick, also a looker. At Tallahassee, one of the busiest ports of call for Florida, the station manager is Mrs. Frances Wheeler, who can match in efficiency the best of the men. All three women have worked out very well in station work.

Florida was the first to be completely equipped with VHF for ground-air communications. It has its own teletype



Mrs. Dorothy Fox is the station manager for Florida Airways at Sanford. Women are in charge at three of the line's 11 stations.

system and is well equipped in all respects except for full night and instrument conditions. There are plans underway, if approval can be obtained, for using ADF and commercial broadcast stations at all of the smaller stops for letdown procedures in instrument conditions. Jacksonville, Orlando and Tallahassee are all approved for instrument work and all three airports, of course, have full facilities.

Good Airports. Currently Florida is restricted to 1,000 feet and a mile at eight airports. Probably no airline in the country has better airports over its whole system. Florida uses large fields constructed by the Air Force during the war. Every one is top class.

Four of the Beech transports are powered with Continental 525 h.p. R9A engines, and the fifth has Pratt & Whitney Wasp engines. Engines are being overhauled at 600 hours, and planes at 3500 hours. Utilization hasn't been too good because of the limited route structure, running about four hours and a half a day per plane.

During the first year, which began Jan. 10, 1947, Florida carried 7,921 passengers, 2,800,000 pieces of mail, 41,300 lbs. of air express, and flew 678,123 miles without incident. Just recently the line passed the million-mile mark of safe operations.

At five airports, (Jacksonville, Orlando, Gainesville, St. Augustine, and Tallahassee), Florida pays \$9 per round-trip landing. Perry and Leesburg, two new and small stops, have no fees. The

other four airports charge a modest flat fee per month.

Florida doesn't waste money. Its total station expense for February, as an example, was \$5,942, a moderate amount considering the number of schedules per day. During April, four round-trips were being flown daily between Orlando and Jacksonville, and two daily between Orlando and Tallahassee. Connecting service is available at Gainesville for Jacksonville-Tallahassee passengers.

Upper-bracket personnel of Florida have had ample airline experience. Oscar Bergstrom, v.p.-traffic, began airline work in 1934. M. D. "Doc" Holman, v.p.-operations, has had 25 years in aviation and once flew for the old Safe-ways years ago. M. J. Brown, treasurer, has been with Colonial and Chicago and Southern. Earl A. Bostleman, supt. of communications, was formerly with Capital. Howard K. Cummins, chief dispatcher, was formerly with Pioneer and W. C. Petersen, supt. of engine overhaul, was with Capital for many years. Supt. of maintenance is William W. Pierce, formerly with Convair and Ethiopian Airlines. E. L. Lowe, chief pilot and assistant operations manager, served with the Marines and with Lodwick School of Aviation.

Public relations director is John Rhodes, a native Florida cracker who knows the state well from many previous activities. He's been conducting a series of aviation weeks in the various cities served by Florida and has created a lot of civic interest and civic pride in the airline.

Interline Volume. The interline business should prove interesting to those who are studying the place of feeder airlines in the national network. Florida Airways has sold through tickets to such faraway places as Liverpool, Cairo, Australia and Tokyo, but it is currently delivering more passengers to Delta, National and Eastern, than it is receiving from them.

For the first three months of this year Florida delivered 276 to Delta, 58 to National and 321 to Eastern. But it received only 130 from Delta, 27 from National, and 310 from Eastern. Bergstrom attributes this to the lack of education among other airlines that Florida offers a certificated scheduled airline service to various points in Florida not served by other carriers.

Until it gets more route miles, Florida is in an economic dilemma no matter how well it fills up its airplanes. Last year the total operating cost was 74.59¢ per mile, of which 38.34¢ was direct and 36.25¢ was indirect. Even if all eight seats were filled constantly, at 5½¢ per mile, the company could no more than cover its direct operating costs. Assuming a load factor of about 60%, which would be optimistic for a local service airline of this type, Florida would be doing well to attain a passenger revenue of 25¢ to 30¢ per plane mile. The rest

AMERICAN AVIATION



Joseph L. Dyer
President



Oscar Bergstrom
V.P.-Gen'l Traffic Mgr.



M. D. Holman
V.P.-Operations



M. J. Brown
Secretary-Treasurer



W. W. Pierce
Supt. of Maintenance

of the operating cost must be met with mail and cargo, and cargo requirements in that area are relatively light.

For 1947 the Beech transports worked out at 19.25c per mile direct flying costs. Depreciation amounted to 9.14c, and direct maintenance to 9.95c per mile.

Revenues for the first year, as might be expected, were featured by mail pay.

matter how good a job Florida does in developing traffic, the airplane can hold only eight passengers. But increasing utilization to seven or eight hours a day, with longer routes and more productive territory, would help materially, of course, to fill in the gap.

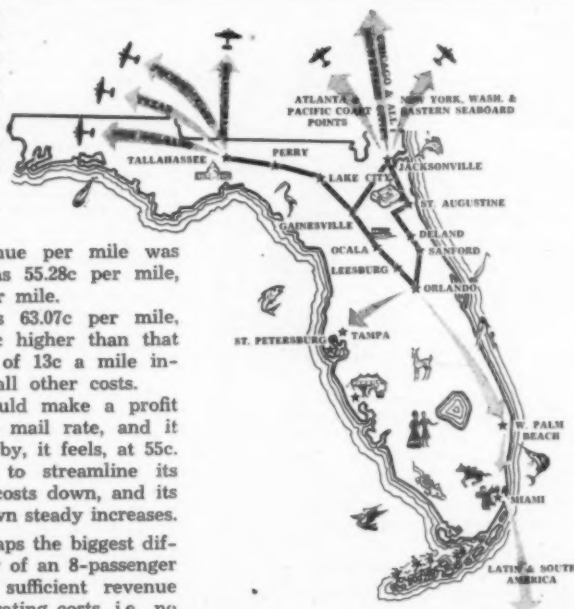
The job Florida is doing in day to day operation is excellent. It has fine

flight crews who consider themselves part and parcel of the airline and pitch in and help at all times. They are also exceptionally courteous to passengers—they have a real pride in the company. Station personnel are on the job. At no time during my day of flying on the line was there any semblance of sluggishness. There were a couple of unimportant delays when the plane was filled to capacity with resultant weight problems to be worked out at the last minute.

The Beech is a comfortable airplane. Possibly due to the low altitudes, never over 2,000 feet, but I've never done so much up and down flying with as little tiring affect. The seats don't recline, there is no toilet or other facilities, but there is no need for any of the plush comfort found on major lines. Florida is just an efficient community service with frequent schedules and stops every few minutes.

The company is trying hard, and it knows it is being watched as one of the important feeder experiments. Last year it held indirect costs below direct costs, which is a good sign. It is undoubtedly a worthwhile experiment to find out how a well-run and efficient local airline service will be accepted and used in a state like Florida. If at the end of the experiment the costs are stacked too high against the prospects, okay, but Florida thinks it will make the grade and prove that this type of feeder is beneficial and can pay off. Having caught the enthusiasm back of the company's efforts, I hope it can, too.

With 54% of its dollar business of interline nature, Florida Airways is a true feeder. Average length of haul per passenger is only 121 miles. Stations average only 40 miles apart.



The passenger revenue per mile was 6.93c, while mail was 55.28c per mile, and express 0.13c per mile.

Total revenue was 63.07c per mile, while costs were 13c higher than that figure, but this loss of 13c a mile included interest and all other costs.

Florida feels it could make a profit with a 60c per mile mail rate, and it could just about get by, it feels, at 55c. It has done a lot to streamline its operations and trim costs down, and its load factors have shown steady increases.

Handicap. Perhaps the biggest difficulty is the inability of an 8-passenger airplane to develop sufficient revenue in itself to cover operating costs, i.e., no



W. C. Petersen
Supt. Engine Overhaul



F. H. Patterson
Supt. of Stations



E. L. Lowe
Chief Pilot



H. K. Cummins
Chief Dispatcher



J. S. Leary
Head of Instruments

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MANAGEMENT

Aviation Calendar

May 18-20—Aircraft Industries Association Directors meet, Williamsburg, Va.

May 27-28—Michigan Aeronautic Conference, Lansing.

May 29-30—New England Seaplane Regatta, Lake Winnepesaukee, N. H. (Sponsored by AOFA).

June 1-6—All-Woman Air Show, Miami, sponsored by Florida chapter, Ninety-Nines.

June 6-11—SAE Summer meeting, French Lick Springs Hotel, French Lick, Ind.

June 8-10—Airport Management Conference, Texas A&M College, College Station. (Dean Howard W. Barlow in charge.)

June 14-15—Airlines Medical Directors Association annual meeting, Royal York Hotel, Toronto, Canada.

June 16-18—Aero Medical Association 19th annual meeting, Royal York Hotel, Toronto, Canada.

June 17-18—Aviation Distributors and Manufacturers Assn. mid-year meeting, Grand Hotel, Mackinac Island, Mich.

June 21-25—American Institute of Electrical Engineers summer meeting, Mexico City.

June 22-23—Annual Ohio State Aviation Clinic, Bowling Green State U., Bowling Green.

June 27-30—National Aeronautic Association annual convention, Hotel Radisson, Minneapolis.

June 30-July 1—National Soaring Contest, Elmira, N. Y.

July 2-3—Second National Air Tour Week sponsored by United Pilots and Mechanics Assn. (1101 Vermont Ave., N. W., Washington, D. C.)

July 6-7—NASAO executive committee and directors meet, Colorado Springs, Colo.

July 16-24—1948 Road Show, ARBA, including airport construction equipment, Soldier Field, Chicago.

July 17-18—Sixth Annual All-Dixie Air Show and National Airplane Trading Day, Chattanooga, Tenn. (Chattanooga Flyer's Club, sponsor.)

July 17-18—Fourth Annual Southern Michigan Aviation Show, Reynolds Field, Jackson, Mich., sponsored by Jr. Chamber of Commerce.

July 31-Aug. 3—International Air Exposition (New York's golden jubilee), New York International Airport.

Aug. 18-20—SAE West Coast meeting, Hotel St. Francis, San Francisco.

Sept. 4-6—National Air Races, Cleveland.

Sept. 13-17—National Instrument Conference and Exhibit, Convention Hall, Philadelphia. (Sponsored by Instrument Society of America, Pittsburgh.)

Oct. 6-8—National Association of State Aviation Officials annual convention, Copley Plaza, Boston.

International

May 17—ICAO Facilitation Division, Geneva.

May 19—ICAO North Atlantic Regional Meeting, Paris.

May 25—ICAO Council, Fourth Session, Geneva.

May 28—ICAO Legal Committee, Geneva.

June 1—Opening of Second ICAO Assembly, Palais de Nations, Geneva. (About three weeks.)

July 19-31—International sailplane contest, Samaden, Switzerland. (FAI sponsorship.)

July—ICAO North Pacific Regional Meeting, Honolulu or Vancouver.

Aug. 24—ICAO African-Indian Ocean Regional meeting. (Site not chosen.)

Aug. 27-Sept. 3—Federation Aeronautique Internationale, Cleveland.

MATS to Begin June 1

To the delight of the taxpayer who has been waiting for some concrete evidence of economy of operation under the unification set-up, and to the dismay of the Navy's air admirals, who have just seen the Air Force snatch their transport planes away from them, the new Military Air Transport Service will begin operations on June 1.

MATS, a consolidation of the Naval Air Transport Service and the Air Force's Air Transport Command, will be headed by Maj. Gen. Laurence S. Kuter, former U. S. Minister to the International Civil Aviation Organization at Montreal. Most military airmen, Air Force and Navy alike, feel that Gen. Kuter is a good choice. An apt and able administrator with a likeable personality, he has had a year's experience in military transport operations, as commander of ATC's Atlantic Division in 1945. He will have for his deputy Rear Adm. John P. Whitney, one-time director of NATS.

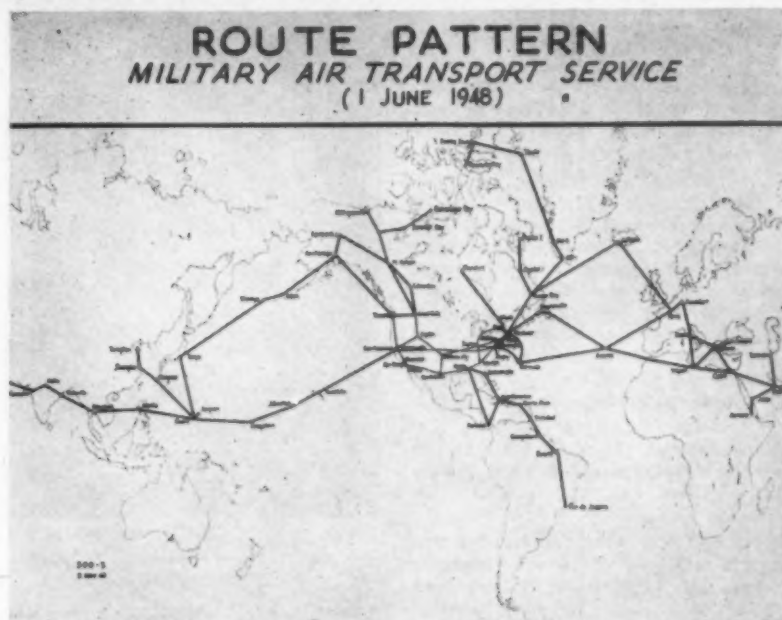
The new MATS will have two main divisions: Air Transport Operations which will control the actual flight operations, and Operational Services, which will provide the supporting services, such as weather, communications and flight service. Maj. Gen. William H. Tunner, who until now has commanded the Atlantic Division of ATC, will be in charge of Air Transport Operations, while Maj. Gen. H. M. McClelland, who has been chief of ATC's Airways and Air Communications Service, will command the operational services branch.

Air Transport Operations will have three sub-divisions; an Atlantic Division, with headquarters at Westover Air Force Base, Mass., commanded by Brig. Gen. Archie J. Old, Jr.; a Pacific Division, with headquarters in Hawaii, commanded by Rear Adm. Matthias B. Gardner; and a Continental Division (domestic), with headquarters at San Antonio, Tex., commanded by Maj. Gen. Bob E. Nowland.

MATS will operate as a command of the Air Force, but will be manned by both Air Force and Navy personnel, with Air Force officers commanding naval personnel and Navy brass in command of Air Force personnel. This will be the old test of unification.

Although MATS personnel stress the point that this is a joint operation, the resultant effect of the merger has been to give the Air Force complete control of military air transport, and the diplomatic dispersal of Navy officers in some of the high places is just balm for the Navy's wounds.

MATS will start operations with 215 four-engine aircraft (Navy R5D, Air Force C-54) and 59 two-engine light transports (Navy R4D, Air Force C-47), manned by a total of about 12,000 personnel, of which one-fourth will come from the Navy. The proportion of Navy personnel and equipment will depend upon the proportionate air lift require-



ments of the two services. Each service will keep, for its own use, 10 special mission transports.

MATS will fly over 65,000 route miles, or about 50,000 fewer miles than the combined services have been flying to date.

The 70-Group Program

Within an hour after the Senate had passed the supplementary defense appropriations bill the Air Force made an announcement in which plans for spending its money were outlined. The bill gave the Air Force \$608,100,000 in cash and \$1,687,000,000 in contract authorization. This will permit the purchase of 2,727 planes, of which 1,575 would be jet fighters, 243 bombers, and 909 reconnaissance, transport, training, rescue and liaison aircraft. Deliveries are scheduled to start in January, 1949, and the first 2,100 planes are supposed to be delivered by July, 1950.

The Air Force emphasized that the appropriations make it possible to buy "time, for which there is no substitute." For example, although five years will be required to complete the procurement of materiel for the 70-group program, in the meantime aircraft now in production will be modernized to improve performance; sub-contracting will be increased to provide a broader base for industrial expansion, should emergency require it.

In the supplementary bill, the Navy's air arm received \$315,000,000 in cash and \$588,000,000 in contract authority, but no information was immediately available on how the money would be spent.

Range Estimates Upgraded

A general upgrading of range estimates on Air Force reciprocating engine aircraft can be expected in the near fu-

ture, due to development of cruise control and pressure pattern navigation techniques.

The Air Force has already disclosed two new range figures—the Boeing B-50, post-war version of the B-29 Superfortress, is now rated at 6,000 miles with a 10,000 pound bomb load, and the Republic XF-12, a high speed reconnaissance plane, is estimated at 8,000 miles.

The new rating for the B-50 almost graduates it to the heavy bomber class, which at present contains only Convair's behemoth B-36, among production bombers. (A heavy bomber, by Air Force classification, is one which has a combat radius of at least 2500 miles. Since combat radius is $\frac{1}{2}$ of total range, this gives the B-50 a radius of 2250 miles.) However, whether or not it qualifies officially as a heavy, it is generally accepted that the B-50 will be the heavy bombardment mainstay of the Air Force.

What? No B-36?

The Air Force's detailed release on plans for implementation of the 70-group program mentioned the planes around which the 70 groups will be built: the Boeing B-50, Republic P-84, North American's P-86 and B-45, Curtiss-Wright P-87 and Lockheed P-80. Conspicuous by its absence was the six-engine Convair B-36, 100 of which are already on contract. Also missing was another production type, the North American P-82, deliveries of which have been held up due to difficulties in mating the airframe to the engine.

As the result of a design competition between six aircraft companies, North American Aviation will be awarded an Air Force contract for a new all-purpose trainer, which will be used for both primary and basic flight training.

—BY JAMES T. HAGGERTY, JR.

PERSONNEL

ADMINISTRATIVE

Thomas W. Pew, president of General Crude Oil Co., of Houston, has been named to board of directors of TWA. He replaces **W. M. Streetman**, also of Houston, who resigned because of pressure of personal business.

Howard A. Morey of Madison and **Milo F. Snyder** of Milwaukee have been named to fill vacancies in the board of directors of Wisconsin Central Airlines. Snyder is vice president of Loewi & Co., Milwaukee investment firm, and Morey is owner and operator of Morey Airplane Co. and Morey Airport, a fixed-base operation.

H. C. Ground, Jr., has been named revenue account of Chicago and Southern Air Lines.

Rhett Ball will relinquish his position as vice president and general manager of Southern Airways Co. in June upon completion of activities in connection with re-working the company's capital structure and the consolidation and liquidation of several war-time subsidiaries. His future plans have not been announced. **Frank W. Hulise**, president of the company, will assume his duties.

Dale Armstrong, vice president of public relations for TWA since last August, has resigned his position. **Gordon Gilmore**, formerly New York district public relations manager for the company and more recently assistant to Armstrong, is now acting head of TWA's public relations department.

Douglas G. Billmeyer, well-known in press and radio circles in the Pacific Northwest, has been appointed director of public relations for West Coast Airlines.

A. J. L. Hume, personnel officer for Pan American Airways for past six years, has been named industrial relations manager of the Latin American division with headquarters in Miami. He succeeds **Rahland C. Zinn**, recently appointed division engineer.

Warren N. Martin has joined TWA's governmental affairs department as legal assistant, with offices in Kansas City. He has been practicing law in Greenville, S. C.

OPERATIONS-MAINTENANCE

Harry Campbell, formerly assistant to the superintendent of flying with TWA's training division at Kansas City, has been named chief pilot of the company's Atlantic division.

Dan Morrow, a 10-year veteran with Chicago and Southern, has been appointed to the newly-created position of supervisor of maintenance operations at on-line stations.



George E. Hatch
NWA's Traffic Manager-Seattle

Arthur M. Best, formerly Pan American Airways station manager at Houston, has been promoted to assistant superintendent of stations of the Latin American Division, with headquarters at Miami. **Guy A. Luttrell**, who has been administrative assistant to superintendent of stations in Miami, takes over the Houston post.

Henry W. Schilling has been named safety engineer at TWA's New Castle base.

Dorothy Nagle has joined Western Air Lines as a stewardess and has been assigned to the line's Los Angeles-Seattle run.

Ernie Blair, formerly a Chicago and Southern crew chief, has been appointed supervisor of the company's consolidated line service at Memphis.



Harry Campbell
TWA's Chief Pilot-Atlantic

William M. Matthews, who during the war served as supervisor of maintenance for President Roosevelt's personal plane, has assumed duties as director of the airline service division of Reading Aviation Service, Inc., Reading, Pa. For nine years before the war he was in maintenance department of American Airlines.

TRAFFIC & SALES

George E. Hatch, a veteran in the air transportation field, has been appointed district traffic manager for Northwest Airlines in Seattle. He was United Air Lines officer in Seattle in 1935, later serving as traffic manager in Chicago. Since the war he has been district traffic manager for UAL in Portland.

Lou Sheets, until recently Eastern Air Lines district sales manager in New York, is now district traffic manager for Northwest Airlines in Cleveland.

John H. Hull has been named sales representative for American Airlines in San Francisco, representing both the passenger and cargo divisions.

Robert J. Wright, who since January had served as assistant district traffic manager for Northwest Airlines at Washington, has been transferred to Detroit in the same capacity.

Warren A. Elsener, formerly district sales manager for PAA's Pacific-Alaska Division at Honolulu, has been promoted to administrative assistant to the division sales manager, with headquarters in San Francisco. **R. G. Pattison**, assistant to the district traffic manager, has succeeded Elsener in the Honolulu post.

Shaun Mahoney has been appointed agency manager for KLM Royal Dutch Airlines' North American Division. His assistants in the new position are Miss **Olga Broman** and **Sheldon Whitney**.

Henry F. Hobein has been named cargo sales representative for American Airlines in the Dallas area.

William R. Hart, formerly a press representative for PAA at LaGuardia Airport and before that with the Air Express Division of the Railway Express Agency, has been appointed director of the news bureau of Colonial Airlines.

William K. Kellogg, formerly city sales manager of Long Beach, Calif., for Western Air Lines, has been transferred to same post in Los Angeles.

Stan Blunt, Jr., a navigator in 15th Air Force during the war, has been named sales representative in charge of the new Western Air Lines office in Hotel Lowry, Minneapolis.

LT. Gen. Harold L. George, wartime commander of the Air Transport Command who resigned a short time ago as president of Peruvian International Airways, has accepted the position of vice president and general manager of Hughes Aircraft Co.

Theodore G. Haertel, until recently European director of the Technical Industrial Intelligence Division, Dept. of Commerce, has joined the staff of the Aircraft Industries Association as assistant to **George Hannaum**, director of AIA's Industry Planning Service.

O. R. Eloffson, vice president in charge of advertising for American Aviation Publications, has resigned and will open up offices as publisher's representative in Washington, New York, Chicago and Los Angeles.

McSherry Heads Idlewild

George M. McSherry, who has been assistant superintendent of La Guardia Airport since the Port Authority assumed responsibility for that terminal in June 1947, has been appointed superintendent of New York International Airport at Idlewild. McSherry was manager of the Dayton, O., Municipal Airport for seven years before going to New York.

The Port Authority announced that foreign airlines will be the first accommodated at N. Y. International, in the program to relieve the congestion at La Guardia. While service at International is slated to begin July 1, hangar space will not be available for U. S. overseas carriers until 1949.

More AA-AOA Integration

Getting further away from the earlier concept that domestic and international operations should be completely divorced, American Airlines and American Overseas Airlines have effected an integration of properties and facilities administration.

The new set-up is under direction of **O. M. Mosier**, vice president of AOA, and includes **James M. Eaton** in the newly created position of assistant to the vice president—metropolitan properties; **D. F. Aherne** in the new post of director of overseas properties; and **C. A. Clarke** as director of domestic properties.

Aherne now reports to Mosier for the administration of all AOA properties, facilities and service agreements outside the continental U. S., except that properties and facilities personnel assigned to London will continue to operate under the vice president—European properties. Eaton is responsible, under the new set-up, for all AA and AOA properties matters at LaGuardia, New York International and Newark airports, Manhattan Air Terminals, Inc., and special assignments.

May 15, 1948

Airline Commentary

By ERIC BRAMLEY

THIRTY YEARS ago on the 15th of May the first aerial mail flight was operated by the Post Office Dept. . . . In order to give proper recognition to this anniversary, we trotted over to the Post Office in search of information . . . **Bob Burgess**, the Deputy Second Assistant Postmaster General, was



most accommodating . . . He got out the original records and he also showed us a couple of albums of fascinating pictures . . . The way we read those somewhat tattered records, the first flight left New York at 11:29 a.m. . . . The gentleman who drove the big bird was called an "aviator" and his name was Webb . . . He roared into Philadelphia at 12:58 p.m., and Aviator Edgerton took over, leaving at 1:14 and arriving Washington at 2:50 . . . Time for the trip was three hours and 21 minutes . . . Things didn't always go this smoothly, however . . . For example, the May 17 record of the Washington-New York flight bears the following note (quoted verbatim): "After passing Baltimore got off course, landed at Cape Charles, Va., replenished fuel and oil and started for Philadelphia, run out of fuel over City, made forced landing

in golf course, damaging plane badly, mail handled to destination by train" . . . We also wanted to show you what an aviator looked like in the old days, and Burgess has loaned us the irreplaceable picture which accompanies this item . . . It shows **William C. Hopson**, who flew the mail out of Omaha . . . Note the winter flying clothing (fur-lined), which was government-furnished equipment . . . Times have changed somewhat . . . Anyway, it's a memorable anniversary . . .

Jack Robertson, of TWA Cincinnati, tells about how the phone rang at 5 o'clock one morning and a man with a sleepy voice inquired how Flight 51 was operating . . . The agent, giving him that old TWA service, told the gentleman that the flight was right on time, and asked if he held space on it . . . "Yes, I have two seats," said the man, "right behind the windshield" . . .

Here's a chance for airline public relations departments to get in on a big contest . . . A release came across the desk of AMERICAN AVIATION DAILY the other day . . . It was on baby chicks being carried by air . . . It was also the 243,386th release received on this subject . . . **Cliff Guest**, the DAILY's managing editor, forwarded the release to us with the following memo: "In view of the thousands of words that have been written about carrying baby chicks by air, the DAILY is ready to offer a prize of one dozen eggs, any style, to the first airline public relations department that quits sending out 'news' releases on baby chicks" . . . Okay, boys, here's your chance . . .

Braniff Airways isn't kidding when it says it has a program to get planes out on time . . . Even the executives can't keep up with it . . . A couple of weeks ago **Chuck Beard**, executive vice president, informed this office that 70% of all departures were operating on the minute, against a December low of slightly over 30% . . . Less than a week later, he had to file an amendment, as the lawyers say . . . This time he informs us that "in our most recent period 78.7% of 1,300 scheduled departures were operated on the minute" . . . By the time this gets into print his last figure will probably be obsolete . . . Let us know when it reaches 100%, **Chuck** . . .

Railroads have often helped airlines on oversales, but when an airline helps a railroad with one, it comes under the category of news . . . Seems like the Santa Fe at Albuquerque had sold the same drawing room twice . . . TWA was called, and came to the rescue with two seats to Chicago—and also gave the passengers an \$11 refund . . .

UAL's New San Francisco Base Built for Efficiency

By DAVID SHAW

Several years ago United Air Lines started planning a maintenance and overhaul base which would take care of the entire system's needs for years to come. The plan called for placing everything but routine line maintenance under a single roof. It involved not only new facilities, but a change from periodic to progressive overhaul, and from regional to centralized operations control.

The results of this long-term planning were formally placed in operation late last month in San Francisco. In dedicating the new base before several thousand employees and visitors, UAL president W. A. Patterson pointed out that it was built for the company's anticipated needs after 1950. Although today's needs are considerable enough to require 1400 employees at the base, Patterson stated that space and equipment is adequate for double the current work load.

The entire base has an air of clean, quiet efficiency—an efficiency already reflected in a 15 to 20% time saving on engine overhaul. Spaciousness, good lighting, and soft interior wall color schemes give the atmosphere of a laboratory rather than a factory. Intelligent scheduling of work and materials eliminates the confusion and waste motion sometimes found in overhaul bases.

United currently has three types of engines to maintain (all Pratt & Whitney). Next year the P&W R-4360 Wasp Major will be added. Engines and spares for the present 144-plane fleet total nearly a million horsepower.

At present United schedules its DC-6's into San Francisco every 700 hours for engine change and certain items of progressive overhaul. This period is expected to be increased shortly as ex-



Cutting Table—United's cabin overhaul shop does everything but weave fabric. This cutting table in one corner of the shop is 84 feet long.

perience accumulates on the R-2800 in airline service. DC-4's, with the R-2000 engine, are brought in every 1000 hours (United is seeking an 1100 hour interval for these engines). Each airplane is out of service for about four days at each period. All DC-3 work, now done at Cheyenne, will be added to the San Francisco schedule later this year.

Work enters the shops through work docks adjoining the new main building. Two of these docks are an advanced type of conventional under-wing ramp. The third is a "push-button" affair with fixed scaffolding, including a two-section tail framework which swings down from above, providing catwalks and work platforms around the whole fuselage.

After a plane is towed into position, raised on hydraulic jacks, and the tail scaffolding lowered into position, as many as 50 specialists, with equipment at hand, start disassembly of all items which are to be removed to specialized overhaul shops.

Engines are swung down with electric hoists to dollies which roll them into the main-floor engine overhaul room. This engine facility, probably the largest and most modernly equipped in the world, is organized around a new 165-foot Markwart engine parts cleaning machine—a refined model of the machine used by United at Cheyenne and by a few other airline and military installations.

Engines first go through a small room for quick cleaning of external grime before moving on to the tear down line. As the engine is disassembled, each part goes onto a hook or into a special basket fitted to the overhead conveyor which leads through the parts cleaning machine. Two conveyor systems, one 1280 and the other 1650 feet long, move through the tear-down, tank, and reassembly areas of the plant at a rate varying from nine to 27 inches per minute. Storage also is handled on overhead lines.

The long, hairpin-shaped tank uses about 30,000 gallons of water and different types of solvents and chemical compounds. Seven separate washers, each powered by a 20-horsepower electric motor, work on the parts at different stages of the cleaning process. A separate tank is used to clean cowling. Additional cleaning, and testing, follows the tank process.

Engine test cells are located in a new structure far enough removed from other buildings to present no noise problems. Each cell is separated from its control and observation room by heavy glass, and the cells are so equipped with fuel, electrical and control fittings that it takes only about 35 minutes to ready an engine for testing. Exhaust and propeller blast is vented directly upward from the cells by means of baffles.

Refrigeration and hot air systems pro-



vide a wide range of temperature conditions which can be applied during testing. There is a central fire extinguishing system which reaches any cell at the touch of a button.

Adjacent to the test cells United has installed a carburetor test room with a decompression chamber unduplicated in the industry. Although the chamber itself is only large enough to hold a carburetor assembly, it requires nearly 80 tons of machinery in an adjoining room to produce controlled pressure and temperature conditions for accurate checking of rebuilt carburetors. A new degree of accuracy in adjusting carburetors for correct fuel and air mixtures up to 50,000 feet is expected with the new equipment.

The radio, electrical and instrument shops on the second floor of the main plant have been designed and equipped for maximum output under ideal conditions. These shops are required to service nearly three hundred complete sets or instruments daily, and the work is done on a production line schedule but without the usual clutter and confusion. The radio shop has a block of eight aluminum-walled, screen-roofed cells in which equipment is tested and calibrated after overhaul.

The instrument shop is supplied with filtered air and kept at slightly higher pressure than outside atmosphere to prevent unnecessary dust from entering the room.

Credit for the modern and efficient design of the new plant is given to Nicholas Boratynski, United's regional engineer in San Francisco, who worked out every detail with department heads and workers before construction was started. The Austin Company, Cleveland, engineered and built the plant, which is under the direction of F. A. Page, base manager.

UAL officials anticipate that improved efficiency and reduced maintenance expense can pay for the plant over a ten year period.

Takes Over Matson Base

Transocean Air Lines is now operating the maintenance, conversion and overhaul base of Matson Aviation Maintenance Co. at Oakland Municipal Airport. A new subsidiary is being formed to conduct the operation, according to Orvis M. Nelson, Transocean president.

Approximately 200 workers will be employed at the beginning, with many of the Matson employees retained. Joe Hunt, who was sales manager for Matson, will be in charge of sales and services.

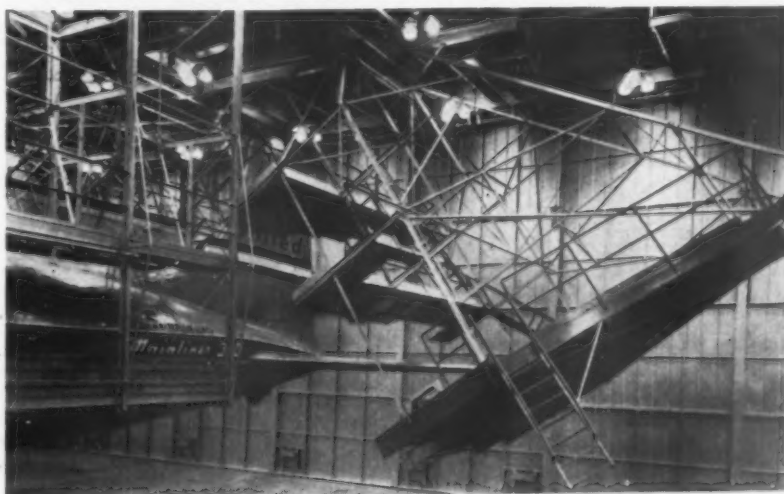
Nelson indicated that the subsidiary would take over the maintenance work for Philippine Air Lines, for the planes still in possession of the Air Transport Division of Matson Navigation Co., and for Transocean itself. The Matson base started operations four years ago with a contract with Naval Air Transport Service.



UAL Expands—Growth of maintenance facilities at San Francisco is illustrated by this recent air view. Large building and three overhaul docks on the left have been added to older hangar, shop and office space at right. Not shown are new engine test cells and carburetor test room.



Radio Test Rooms—In the radio-electrical shop are eight of these shielded aluminum test booths. Production-line efficiency is achieved by equipping and calibrating each room for a particular type of equipment. Nearly 300 radio sets, instruments and electrical items are serviced daily on the second floor.



Push-Button Dock—Biggest innovation at the new UAL base is the overhaul dock which not only provides fixed under-wing work ramps but a skin-tight scaffolding around the entire airframe. This view shows delicately balanced tail servicing structure being lowered into position after plane has been towed into permanent nose and fuselage dock.

\$200,000 Flight Trainer

Pan American Airways has invested \$200,000 in a new Stratocruiser flight simulator which will subject flight crews to every condition which might occur in an actual training airplane. Complete Stratocruiser controls and instruments, furnished by Boeing Aircraft Co., have been coupled with electronic mechanisms to give the trainer the exact performance, feel and even noises of the airplane itself.

The trainer was demonstrated for the first time this week by Curtiss-Wright Corp. and Dr. R. C. Dehmel, who developed the device. Training replicas of smaller aircraft have been built by Curtiss-Wright for the Air Force, but this is the first to be built for an airline.

Pan American intends to use the training simulator to a considerable extent in place of actual airplanes for crew check-outs and refreshers. The exact extent to which simulator time will be credited in lieu of flight time has not yet been determined, but the realistic duplication of the Stratocruiser cockpit and the plane's performance characteristics should considerably reduce the number of flight hours required for familiarization.

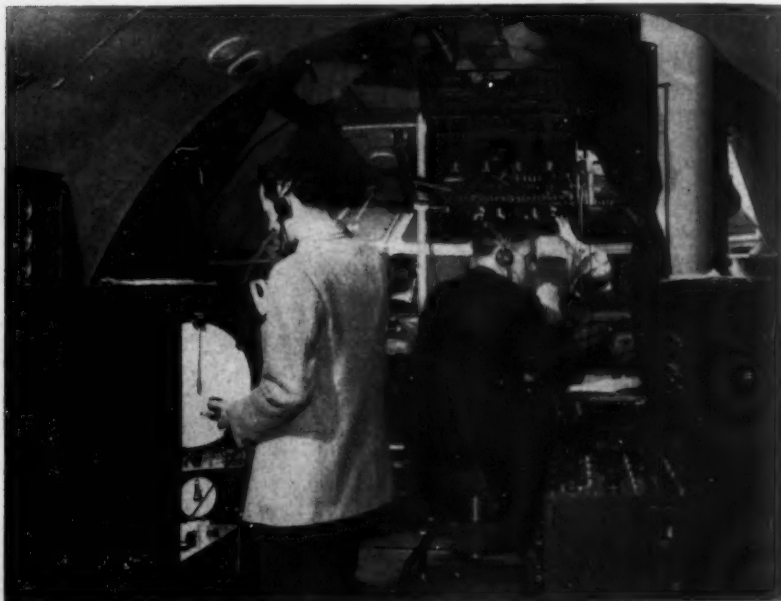
Complete crews will be trained together to improve cooperation and teamwork. An instructor outside the cockpit can set up more than 40 different abnormal or emergency conditions, with thoroughly realistic cockpit indications,

to improve crew reaction. It will also permit careful analysis and improvement of training methods.

Every control and accessory system on the airplane feeds through the instructor's position to the cockpit to permit simulation of anything which might go wrong in flight. Power failure, excessive cylinder head temperature, loss of oil pressure, carburetor icing, flap and landing gear failure, faulty spark plugs and numerous other conditions can be reproduced with convincing realism.

Enroute and approach navigation problems can be worked with similar realism. From pre-flight checkoff to landing run-out the pilot and other crew members see, feel and hear everything that would be noticeable in actual flight. Engines whine, sputter and roar when started. The feel of high-powered acceleration exists during take-off. Flap actuating motors can be heard during approaches, and the squeak of tires is reproduced on landing impact.

Pan American and Curtiss-Wright see several advantages in the elaborate trainer over using actual airplanes for all phases of a training program. Crews can be thoroughly familiar with the cockpit, and with each other's habits, before they ever take to the air. The airline can experiment, with new operational techniques without risk to crews and aircraft. Costly airplanes will be less subject to rough treatment during training operations and more available for revenue passenger service, and crews can be given more time and closer supervision during the training period.



It Never Leaves Ground—Pan American crews soon will check out in the cockpit of the Boeing 377 Stratocruiser, under realistically simulated flight conditions, in this \$200,000 electronic trainer. With night curtains down the instructor in foreground can subject crew members to every normal or emergency condition which they should be prepared to meet in flight.

92 ton feather

The U.S. Navy's Lockheed Constitution (big brother of the famed Lockheed Constellation) weighs 92 tons—twice as much as the average airliner.

Yet its five-ton, dual tandem landing gear is so finely articulated that the plane can land light as a feather.

So light, in fact, that there's a signal in the cockpit to inform the pilots when the prerotating wheels touch the ground during a landing.

The gear spreads the weight of the Constitution over such a large area that the airplane can operate from any normal CAA Class 4 airport without strengthening or lengthening of runways.

More than 50,000 engineering man-hours went into Lockheed's development of the remarkable gear.

Such pioneering in design and research, in combination with resourceful production techniques, keeps Lockheed well in the forefront of aviation.

Lockheed Aircraft Corporation, builders of the U. S. Navy P2V Patrol Bomber, holder of the world's long-distance non-stop record (11,236 miles); the P-80 Shooting Star, the U. S. Air Force's standard jet fighter; and the Constellation, world's leading transport.



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of its partnership with the leaders in aviation. For the world over, you'll find Bendix Landing Gear at work—making landings safer, shorter. Long and close cooperation with the world's leading and the foremost plane manufacturers has given Bendix a background of practical engineering experience unparalleled in the industry. Next time you face a landing problem—**PLAN WITH BENDIX**—because Bendix Lands the Leaders.

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CAB's \$500,000 Error

Although in general one of the major complaints against the Civil Aeronautics Board has been and is the fact that it moves too slowly, the Board on occasion has shown that it also can move too hastily. Probably never was there a more costly (about \$500,000 loss for the airlines) demonstration of this fact than in the case of Special Civil Air Regulation 319.

For months the nation's scheduled airlines had been working toward full compliance with SR-319, which required that passenger planes operated during darkness or under instrument flight rule conditions should be equipped with an absolute terrain proximity indicator. First deadline for compliance was Feb. 15, but an extension was granted to May 15 when a number of carriers reported unavoidable procurement and installation delays. As the end of April drew near, most of the affected carriers reported they had completed the required installations.

On April 29, just 16 days before the compliance deadline, CAB abruptly rescinded SR-319, reporting that operational experience of carriers who had installed the devices had indicated that they would require an unusual amount of maintenance, were likely to give erroneous indications, and had a high rate of malfunctioning.

In a way, the rescission was cause for rejoicing in airline operations departments, for the carriers had indeed found that performance of the terrain proximity indicators was anything but reliable, particularly under adverse weather conditions, when the need for reliability was most pronounced.

On April 28 they had filed a formal request, through the Air Transport Association, for an extension of the full compliance deadline on the grounds that reliability of the indicators had been proved variable and the devices still clearly were in the experimental stage. Even so, the rescission had a jolting effect on the 20-odd air carriers who had spent an aggregate of more than \$500,000 in purchasing, installing and in some cases modifying more than 800 of the terrain indicators in anticipation of the compliance deadline.

It was not the rescission itself that disturbed the airlines, for they had already found this to be desirable. What greatly concerned them was the fact that the CAB had felt compelled to adopt SR-319 in the first place, when careful investigation would have shown that there were no terrain proximity indicators of proved dependability on the market, and that the Board had not waked up to the folly of its action until the airlines had gone to the expense of making the required installations.

Thus was the end of SR-319, which had had its inception in the public hearings held last summer by the President's

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Idea Pays Off—Don M. Bradley (left), regional supervisor of stations for Chicago and Southern Air Lines, received \$500 in award money for suggesting a new method of computing actual flight time of the company's aircraft. The method will save in excess of \$1,000 monthly in equipment maintenance. The award is highest ever made in C & S' employee suggestion program. J. A. Young, operations manager, is shown in center above, and Sidney A. Stewart, executive v.p., to the right.

Special Board of Inquiry on Air Safety. The Special Board was concerned over the number of air transports that had flown into the side of hills or mountains, and information presented to them by quite a few persons indicated a pressing need for installation of absolute terrain proximity indicators on passenger planes for use under limited visibility conditions.

CAB acted upon the Special Board's recommendation, but stipulated that the indicators should be required only as secondary navigational aids, not replacing any other required navigational instruments. The Board, even then, was not too sure of the soundness of its recommendation and made SR-319 applicable for a period of only two years, during which the practicability of the devices could be thoroughly tested. Its feeling, at that time, was that the indicators would not detract from and could contribute substantially to the safety of flight.

Better Evacuation Needed

When an airliner involved in an accident catches afire without injuring anyone, and then five passengers are hurt in making the 15-foot jump from the plane to the ground after the crash, there's a definite need for better evacuation facilities. Such was the conclusion reached by the Civil Aeronautics Board accident investigators who prepared the report on the Eastern Air Lines accident at Logan International Airport last Jan. 21.

Probable cause of the mishap to the Model 649 Constellation, according to the report, was "loss of directional control of the aircraft on the runway, due to excessive snow accumulations." On

this score, the the report was critical of "the lack of precaution exercised by the air carrier's station manager, the CAA's operations inspector and the airport management in determining that the conditions of the runways were adequate for safe aircraft landing."

While the fact that such laxity caused the plane to skid, smash into a deep snowbank and catch afire was of concern to the CAB's investigators they seemed even more concerned that the only injuries resulted during evacuation of the plane.

"This accident," CAB stated, "forcibly points toward the necessity for the development of more suitable passenger evacuation facilities. Although the crew made no attempt to use any emergency evacuation equipment with which the aircraft was equipped, there is considerable question as to whether use of the rope would have minimized injuries during the evacuation, and there is no doubt that use of the ladder would have materially increased the time for evacuation."

Noting that in the darkness inside the plane the placards describing the location and operation of evacuation equipment and emergency doors were not legible, the report continued:

"None of the passengers, therefore, was able to open the cabin entrance door or any of the emergency doors, nor was any of the passengers aware that emergency evacuation equipment was carried aboard the aircraft. Although the light from the burning gasoline illuminated the cabin interior to some extent in this instance, this accident indicates the necessity for independent auxiliary lighting facilities to illuminate such areas as emergency

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OPERATIONS-MAINTENANCE

exits, emergency evacuation equipment, first aid equipment, and survival craft equipment, when applicable, in the event of failure of the electrical system."

Cox Files Minority Report

When the Special Board of Inquiry on Air Safety submitted its report to the President last Jan. 5, Capt. Howard B. Cox, representing the Air Line Pilots Association, declined to sign the report, said he would file a minority view later. His report, filed last month, lived up to advance expectations.

The pilots, through Cox, endorsed present grievance-handling machinery contained in most pilot-company contracts, attacked airline management's position on the seniority question, and made a "straightforward and unequivocal" recommendation that an Independent Air Safety Board be re-established by Congress.

On the latter point, Cox said re-establishment of this Board (originally established by the Civil Aeronautics Act of 1938, but removed on June 30, 1940, by Reorganization Plan No. IV) would be "the greatest boon to air safety and the development of airline transportation that it is possible to accomplish." He accused airline representatives on the Special Board of Inquiry of "evasion" and "ambiguity" in failing to make a specific recommendation on this subject.

On the question of seniority, the ALPA spokesman said the airlines wished to depart from established principles "to gain an advantage over their pilots which could only result in fear and intimidation and broken morale."

He said the airlines "apparently wish to sprinkle politics and favoritism amply throughout the ranks of their flying personnel to take the place of good, sound American-way seniority."

Pointing out that only 43 cases have been filed with the Adjustment Board under the grievance-settling procedures set up in airline employment agreements signed eight or nine years ago, Cox said: "Surely, a grievance-settling procedure which keeps things running as smoothly as this and has proved so beneficial and effective should not be altered. To do so would be to turn back again into the dark ages of Company-Pilot relations which could only be detrimental to air safety."

The ALPA spokesman denied that pilots sometimes are tempted to "fly unsafely just for the money involved," and said that if airline operators had any worries on this score they could "guarantee the pilots pay for a sufficient number of flying hours monthly to offset this supposed tendency, without changing the basic laws covering pilots' rates of compensation..."

He said the use of psychological tests as a basis for releasing employees is completely out of line with the purpose and intent of such tests.

SAFETY SLANTS

ONE of the better features of the Convair Liner and the Martin 202 is the built-in passenger loading steps. There are several arrangements differing in location and construction details. Injuries to airline employees and damage to flying equipment chargeable to passenger loading stands, while always appreciable, have increased heavily with the use of newer, larger airliners during the last few years. The new planes with their tricycle landing gear and the higher elevation of their cabin doors called for bigger, heavier steps than were needed for DC-3's and Lodestars. Variation in door elevation between different planes and door locations made adjustable height stands a necessity. For instance, American, after buying a number of fixed type steps, decided to try front loading on its DC-4's. The front door is just enough higher than the rear to require another step. The change thus meant that any new stands had to be adjustable to either position. The new planes thus rate at least one orchid from ground equipment groups, since they can forget the passenger stair problem.

Another safety-in-operation feature of the Convair is the low location of the engines and the "orange peel" cowling. The convenient height of the engines make high ladders and special engine service stands unnecessary while the jiffy type cowling eliminates need for struggling with sectional pieces every time the engine needs an inspection.

Fire protection engineers would still like to find a way to render gasoline non-flammable. Of course, it has to burn to give power, but if an agent were available to neutralize spilled gasoline, for example, or to discharge into the tanks of a plane about to crash, the fire prevention possibilities would be tremendous. Some use has been made of carbon dioxide flooding systems operated manually or by means of an automatic crash switch, but the entire solution is not yet in sight.

Here are a few random accident reports:

"Pilot riding on running board of a tractor which hit rut, thrown to ground. Fractured elbow."

"Cargo handler thrown from baggage cart being towed from plane gate to express office. Sprained shoulder."

"Agent riding on belt of cargo conveyor being driven up to plane fell to ground. Wrenched back."

It's nice to ride in style, but be sure that it is safe style.

AMERICAN AVIATION



The Birdmen's Perch

By Major Al Williams, ALIAS, "TATTERED WING TIPS,"

Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.



Remember the average airline pilot we told you about a few months ago?

We gave you his height, weight, hours, and everything but the color of the mole on his back.

Well, now we can tell you about the average flying farmer, of which 558 are represented in the following figures:

He's 36 years old, or a little older than the usual pilot. He has about 439 hours and has been flying about 29 months; so, you see, he's not a novice.

His plane really works for its feed. He gets much more utility out of it than the big-city boys, using it for everything from fence-riding to shopping trips.

And we're pretty sure that a cookie as smart as this demands the same high quality in his aviation petroleum products (meaning Gulf Aviation Products) as he does in his farm petroleum products (meaning Gulf Farm Aids)!

WHAT AND WHY

Once upon a time, people were so impressed by the fact that airplanes *flew* that they didn't notice much else about them.

Today, these same people are much more interested in *what* an airplane does *when* it flies. They're interested in how much utility they can get out of it; in how much more work they can get done with one; in how soon it will pay for itself.

Same thing with oils.

There was probably a time when people were so impressed by the fact that oil lubricated that they didn't notice much else about it.

Today, they're darn curious to know *what* the oil does when it lubricates. They're interested in *how much* metal-to-metal-wear prevention they get out of it; in *how much* more actual lubrication they get with a given brand of oil; in how quickly a premium oil like Gulfpride repays its initial cost.

That's why we keep telling you about the Alchlor Process, the extra refining step that removes an extra 15% of non-lubricating impurities from an already refined oil . . . to make Gulfpride Oil.

Because once you try Gulfpride in your own engine, you'll have a fistful of proof that it lubricates *better* and *longer* and *cheaper*!

NO NAME DEPT.

The mail is about 50-50.

Half the letters say keep the Little Known Facts Dept., the other half want Pet Pilot Peeves or Favorite Flying Gripes. Most of the original suggestions, such as "Service Hints For Maintenance Shops," would be more interesting to the lad who

suggested them than to the whole gang of Perch Pilots.

You'll just have to keep up the requests until we get a better idea of what you want, gents.

Meanwhile, will you skyrocketers who are holding out for the Peeves or Gripes Depts. start sending your Pet Peeves in?



Can't be a Pet Peeves Dept. without Pet Peeves, can there?

Unload all your flying hates (address above) and you'll feel considerably relieved at having gotten them off your chest. And so will we at having gotten some more material for the Perch.

Gulf Oil Corporation and Gulf Refining Company...makers of



GULF AVIATION PRODUCTS

WHEN YOU SWING THE PROP AND SHE STARTS "SOFT" WITH WEAK COMBUSTION



PLUS BLACK EXHAUST SMOKE - IT GENERALLY MEANS THAT YOU'RE OVERPRIMED.



FER THE LUVVA MIKE, STOP WASTING THAT...



GOOD GULF AVIATION GASOLINE!



It

COMPUTES AND
RECORDS THE SALE



INVESTIGATE

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REFUELING SYSTEMS
★ COMPUTING CABINET TYPE

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*Success Training
for the Radio and
Airline Industries*

As We See It . . .

YOUR JOB . . . To continue to give the American air travelling public the courteous, efficient handling that has built the air transport industry.

OUR JOB . . . To supply you with highly trained men and women who can help make your reservations, communications, and telephone sales departments fulfill their parts in the airline organization.

OUR QUALIFICATIONS
Complete facilities for technical and practical instruction, an instructor staff with years of airline background, and an earnest desire to bring you men and women we can both be proud of.

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and
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SCHOOLS, Inc.

17th and Wyandotte Streets
Kansas City 8, Missouri

OPERATIONS-MAINTENANCE

COMMUNICATIONS

Code Saves Time, Money

In order to obtain fullest benefits from its private trans-Atlantic cable facilities, first to be operated by any international airline, British Overseas Airways had to devise a lettered code enabling it to send a great volume of messages over the line and thus reap the economies of the volume-message rate. How well they had succeeded in devising such a code was revealed last week.

A passenger in New York had requested certain accommodations in a Liverpool Hotel. The answer that came back from BOAC's London Office was:

NSHA DCOCBBEBO.

To an outsider, this would have appeared to be Malayese or Eskimo language, but the BOAC clerk in New York had no difficulty at all in translating it to:

"No, we cannot book the hotel accommodation requested but offer instead one double room small hotel for three days arriving May 22 City of Liverpool."

This coded message cost BOAC about one-eighth the normal cable toll. Over a period of months, the code, together with the volume rates quoted to BOAC by International Metered Communications, owners of the cable facilities, would enable the airline to transact a lot of international business without paying an exorbitant price for the service.

Linked at both ends with special telegraph and telephone connections to its various offices in North America and in other parts of the world, as well as with British European Airways and other associated carriers, BOAC's new cable facilities make possible the confirmation of a complicated intercontinental booking in a matter of a few hours instead of in several days, as has generally been the case in the past. Routine booking, stopover and hotel accommodation information can be obtained via the direct cable in as little as 10 minutes.

The cable line connects Booking Control in New York, which controls seat space east to London and onward, and Booking Control, London, which controls space to New York and all space on BOAC planes operating over the company's world-wide system. Also, the London section is in close liaison with BEA, Qantas-Empire Airways, South African Airways and other lines operating from London to Africa, the Middle East, Asia and Australia. It is supplemented in this country by extensive teletype networks, which is readily connected with major hotels and consulates from coast to coast. It is now possible for BOAC's London office to book specific reservations at a Chicago or Los Angeles office within 20 minutes.

Another advantage of the new cable system and code is that it eliminates "cable-ese" instructions which in the past have sometimes caused confusion.

30 HOUR CHECK

By DAVID SHAW

There were a number of remarks at the recent SAE aeronautic and air transport meeting in New York which might eventually lead toward airplanes which will be easier to fly and fix.

R. R. Higginbotham of Republic Aviation Corp., in a paper titled 'Ancestor Worship in Engine Control Design,' concluded that although non-mechanical remote positioning controls have been widely and satisfactorily adopted for propeller and turbosupercharger control, mechanical controls have not yet been replaced for throttle and mixture. Furthermore, he said, non-mechanical throttle and mixture controls do not seem slated for early adoption despite (1) the desire of aircraft manufacturers to reduce the tremendous number of engineering man-hours which go into mechanical controls, and (2) the willingness and ability of several control manufacturers to develop new electric, electronic, hydraulic or pneumatic equipment for this purpose. Higginbotham felt that a single accelerate-and-retard lever with automatic linkage to all engine control elements would develop along with turbine propulsion.

In another paper John Baird of the CAA analyzed all the power plant installation troubles (exclusive of integral engine and propeller components) in air carrier operations between 1937 and 1947. His information, based on Mechanical Interruption in Flight reports submitted to CAA by all airlines, showed that in the accessory group, starters accounted for 42% of all troubles, with generators, combustion heaters and cabin supercharger drive systems accounting for much of the remainder; in the control group propeller controls caused 40% of all troubles, with throttle, mixture, carburetor heater and miscellaneous items following; induction system failures were responsible for a rather small portion of the total power plant installation troubles; exhaust system difficulties, mostly in manifolds and stacks, and instruments each accounted for about 7% of all power plant installation troubles; the fuel system was responsible for 18% of all troubles, and the lubrication system, 20%. After ticking off each mechanical item which caused trouble, Baird listed 15% of all power plant installation troubles as due to errors of commission or omission on the part of operating or maintenance personnel.

Baird's paper, incidentally, must have involved a tremendous amount of preparation, and impressed us as something of an historical document—one which will have to be studied and used by everyone who wants to be systematic about maintenance.

AMERICAN AVIATION

—FLIGHT OPERATIONS—

Aerial 'Rules of the Road'

International flying has long been complicated by differences in aeronautical maps and charts in different countries, by different rules of the air, by different meteorological codes and by different dimensional measurements. Most such complications should soon disappear.

In Montreal late last month, the International Civil Aviation Organization Council formally adopted five categories of standards which will have the effect of law in 51 countries. The codes adopted were the result of almost four years' study and work by the technical committee which originated in the Chicago Civil Aviation Conference of 1944.

They provide for: international rules of the air which generally follows U. S. concepts of air traffic regulation; uniformity of licensing in key positions in international operations; uniformity of aeronautical charts; standardization of meteorological codes; and mensuration tables providing for a gradual departure from the foot-mile and Fahrenheit dimensional standards of the English-speaking nations and world-wide adoption by 1959 of a completely metrical table of dimensions for aeronautical use.

Probably the most important standards adopted are those for the aerial "rules of the road," for air traffic control in such zones as is necessary, and for blind-landing aids and radio and radar aids to navigation. Some concessions were made to the British views on visual flight rules, which they thought were too restrictive, and still others may be made later if any member nation files reservations, as they are permitted to do.

The new codes leave provision for some flexibility in local flying. It is agreed that all international airports are to be equipped with the omni-directional VHF radio ranges, the Instrument Landing Systems and the Ground Control Approach radar systems now coming into use in the United States, but airports serving only local traffic can use such British and continental aids to navigation as the British "Gee" and "Consol" systems.

In the mensuration tables, the statute mile is already generally eliminated. By 1951, the 51 nations must elect to use either the nautical mile or the kilometer to denote horizontal distances, and by 1959 all will be on nautical miles.

—NEW EQUIPMENT—

Sextant Replacing Astrodome

The airlines whose planes must carry night navigators have never been very pleased with the plastic bubble or astrodome into which the navigator has to climb in order to scan the heavens. A periscopic sextant now being tested by

Pan American Airways appears likely to eliminate the need for the astrodome.

The new device attaches to the ceiling of the flight compartment, and the navigator's view of celestial objects is obtained through a small tube which pokes up a few inches through the metal skin of the plane and can be rotated to afford a complete picture of the heavens. It not only facilitates the taking of readings but also eliminates the drag of approximately 5 mph on the plane's speed which the astrodome causes.

Kollsman Instrument Co., of Elmhurst, N. Y., developed the periscopic sextant originally for Pan American Airway's version of the Boeing Stratocruisers now on order, but other airlines and the Military Air Transport Service are now said to be interested in the device.

A Pan American Clipper flying between New York and Calcutta has been equipped with the new sextant and has made more than a dozen trips across the Atlantic with the device in regular use by the navigators. Reports of the navigators are being evaluated by Stuart B. Robinson, assistant chief navigator for PAA's Atlantic Division.

MGC's Powermobile

A self-propelled power unit, especially designed to supply ground power service for airplane engine starting,



heating and cooling systems, radio, electronic and other devices, is now being manufactured by Motor Generator Corp., a Hobart Bros. affiliate, Troy, Ohio. It is offered in two models, the 606 with 500 ampere power unit for servicing DC-6 and similar aircraft, and the 609 or 1,000 ampere unit for the Boeing Stratocruiser. Either of these units exceeds power requirements for engine starting and should greater capacity be required, two "Powermobile" units of like rating will parallel satisfactorily.

Serviceable equipment includes universal couplers, front and rear, for towing baggage, mail, express, fluid service and commissary carts; and floodlights which can be detached from the vehicle and extended about 50 feet.

—CIVIL AIR REGULATIONS—

Flight Recorders in Transports

Scheduled air carrier aircraft of less than 10,000 lbs. maximum authorized take-off weight in passenger and cargo service may be operated without flight recorders, under an amendment to Section 41.24 of Civil Air Regulations, effective May 1. CAR have previously required that all aircraft operated in

AIR views

"Very definitely, it is not an exaggeration to state that our company believes that air freight can revolutionize merchandising."

This statement is taken from the testimony of the General Traffic Manager of a large mail-order firm given before the Civil Aeronautics Board.

It comes as the result of proved success in using air freight to save costs on interest-in-transit, inventory-in-transit, swifter turnover of stocks, and the value of being first in a community with newest products and styles.

Here at Douglas we also believe in the growing future of air freight. And we are working with the air carriers and the shippers to lower air freight costs and to step up efficiency of operations.

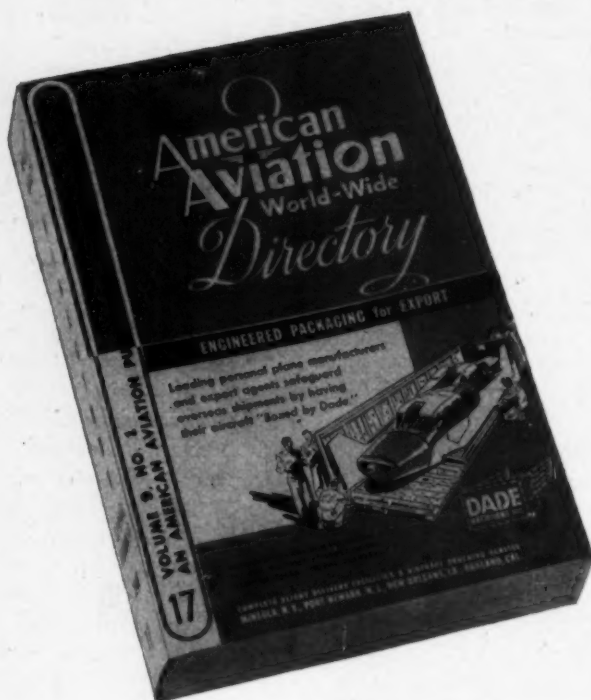
Right now we are working on a freight version of the huge Douglas DC-6. This giant plane will, for example, carry up to 30,000 lbs. of payload. It will cut to 8 hours the flying time between New York and Los Angeles. New methods of handling and stowing cargo aboard the DC-6 also will be tested with individual air carriers.

Until the DC-6 enters service, freight versions of the Douglas DC-4 and DC-3 continue to carry the bulk of all air freight throughout the world.

Harold W. Douglas

PRESIDENT
DOUGLAS AIRCRAFT COMPANY, INC.
SANTA MONICA, CALIFORNIA

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OPERATIONS-MAINTENANCE

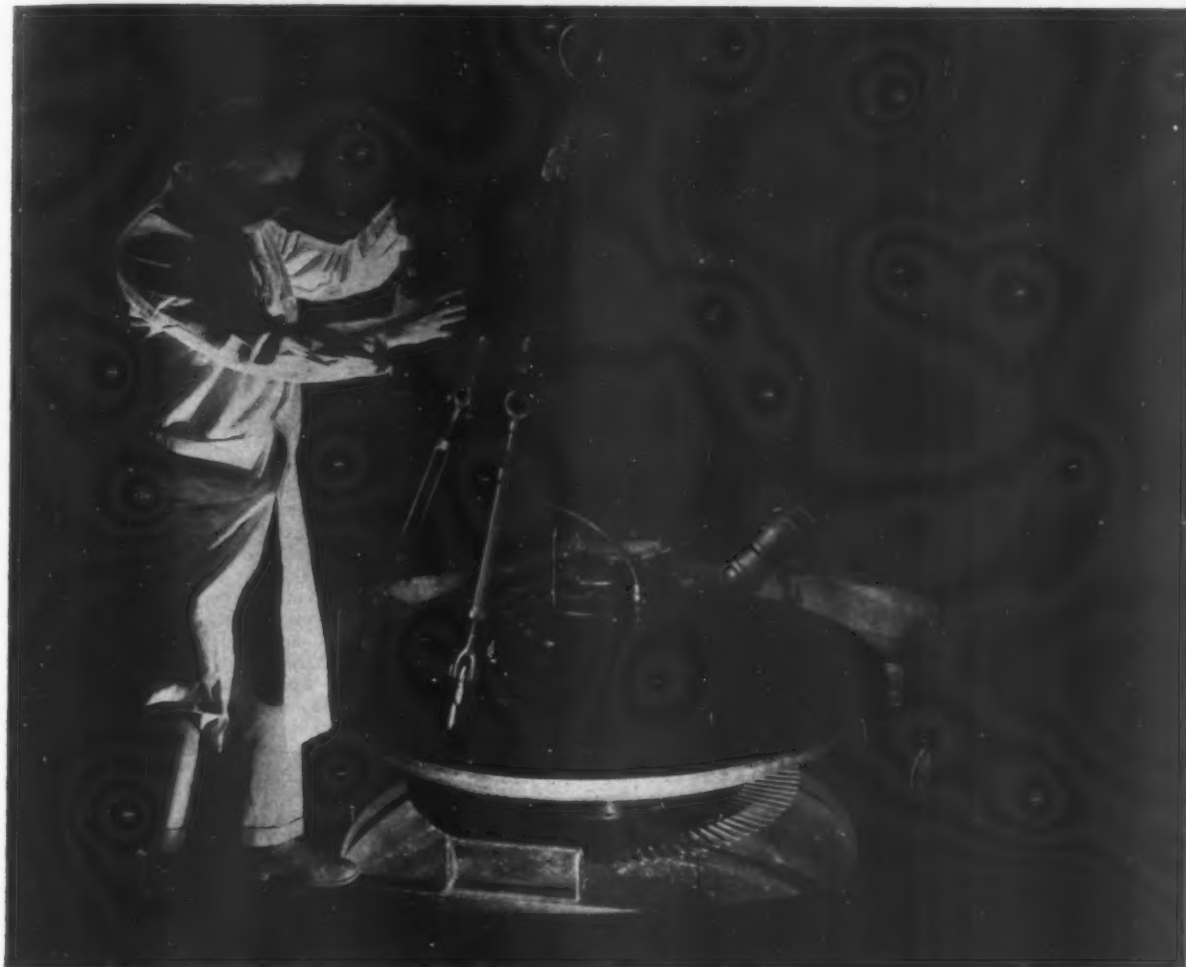
scheduled air transportation be equipped with flight recorders after June 30, 1948.

Check Lists Required

Effective May 20, all air carrier operators will be required to provide and maintain cockpit check lists and procedures for all aircraft operated in air transportation, and to keep these lists in a readily accessible location in the pilot compartment of each plane.

Daily Plane Utilization
Domestic

	Jan.	Feb.
American		
2 eng. pass.	6:16	6:14
4 eng. pass.	9:05	9:20
Cargo	3:29	3:48
Braniff		
2 eng. pass.	6:15	5:54
4 eng. pass.	6:22	6:56
Cargo	3:37	5:46
Capital		
2 eng. pass.	6:38	6:53
4 eng. pass.	3:47	3:47
Cargo	2:37	2:32
Caribbean		
2 eng. pass.	2:41	2:40
C & S		
2 eng. pass.	6:57	6:38
4 eng. pass.	5:24	5:03
Colonial		
2 eng. pass.	3:43	3:55
Continental		
2 eng. pass.	7:48	7:56
Delta		
2 eng. pass.	7:23	6:50
4 eng. pass.	9:11	8:32
Cargo	4:56	4:23
Eastern		
2 eng. pass.	9:50	9:31
4 eng. pass.	8:16	8:31
Cargo	4:02	6:31
Hawaiian		
2 eng. pass.	6:42	6:18
Cargo	2:27	2:10
Inland		
2 eng. pass.	10:08	9:55
MCA		
2 eng. pass.	7:05	7:06
National		
2 eng. pass.	4:12	:38
4 eng. pass.	9:05	1:51
Northeast		
2 eng. pass.	4:44	4:03
4 eng. pass.	1:23	3:59
Northwest		
2 eng. pass.	4:08	4:13
4 eng. pass.	7:51	7:53
TWA		
2 eng. pass.	10:00	8:51
4 eng. pass.	6:23	6:29
Cargo	4:50	4:27
United		
2 eng. pass.	9:20	9:24
4 eng. pass.	8:37	8:52
Cargo	3:43	3:01
Western		
2 eng. pass.	7:30	8:01
4 eng. pass.	6:42	7:08



GOING UNDERGROUND FOR A "WHIRL"

► This aircraft turbine wheel is about to undergo a "whirl test"—a test to prove its ability to survive the tremendous centrifugal forces present while it spins at supersonic blade tip speeds.

► The test is conducted in an underground chamber from which the air is evacuated. This permits the wheel to whirl at higher speeds than required in service . . . for if the blades had to push air around at such speeds, enormous power would be required to drive the wheel. To detect any slight irregularity that might occur during the run, the test rig has an electronic indicator.

► Because some experimental parts are whirled to destruction to determine how much overspeed they can endure, the chamber is lined with laminated boiler plate—12 inches thick.

► Each newly designed turbine wheel, compressor, and supercharger impeller must prove its ruggedness in similar tests in the Wright Aeronautical research laboratories before being released for production.

► Another example of the painstaking research behind the development of Wright aircraft turbine and reciprocating engines.



POWER FOR AIR PROGRESS

WRIGHT

Aeronautical Corporation • Wood-Ridge, New Jersey

A DIVISION OF
CURTIS-WRIGHT
FIRST IN FLIGHT

Orient Trade Boom Coming

That "Made In Japan" label which appeared commonly on merchandise sold in this country before the war but which became anathema after Pearl Harbor soon will reappear in profusion, according to J. W. Mariner, cargo director of Northwest Airlines, who returned recently from an inspection tour of the Far East.

Mariner sees an important Japan—U. S. trade boom in the making as a result of these recent developments:

The State Department already has relaxed restrictions on business travel to Japan by American buyers; it is preparing to let a sizeable number of U. S. tourists into Japan, thereby boosting the country's dollar supply; it is permitting the Japanese to send limited quantities of sample goods to U. S. merchants; and recently it authorized a trip for a few Japanese businessmen to this country.

A trickle of new cargo business already is flowing to the U. S. over Northwest's route through Alaska, and Mariner is confident that cargo business between the two countries will more than treble in the next few months.

A key factor in the expected cargo boom is Japan's low labor costs, which are part of the Allied Supreme Command's plan to draw business into the occupied country and thus help it back on its feet financially. An example of how this works is shown in NWA's cargo lists: Swiss watch parts are being flown to Japan, where the Japanese put them into Japan-made cases and send them back to the U. S. for sale.

Present exports from the Orient, in largest volume, are canned sea food, optical and photographic supplies, semiprecious stones, satins, silks, laces, tea, cultured pearls, cigars, baby dresses and diplomatic pouches, but the Japanese also are building up backlogs of cloisonne crockery, porcelain ware, silks, leather goods, damascene novelties, cigarette lighters and inexpensive cameras for the U. S. market. Not lacking goods to sell, the Japanese have only been waiting for the time to come when U. S. buyers could come and see their offerings or when they could come to this country. This is now becoming possible for the first time since the war.

The Northwest Airlines official said it is probable that most of the initial inventories of these Made-in-Japan products will move by air so the Japanese can get in business without delay. Later, surface vessels will get the bulk of the shipments, with the airlines replenishing supplies and handling rush shipments.

Preparing for the expected trade boom, Northwest is thinking of setting up a weekly all-cargo flight between Tokyo and the U. S. and is working out basic commodity rates which should spur cargo shipments over its Orient route.



Radar-Proof— Metal canisters, developed by Wabash Photolamp Division of Sylvania Electric Products, Inc., are designed to protect air-shipped photoflash bulbs from premature ignition by radar waves. Metal in this container was found to deflect radar impulses while the lip-type cover will not open even under adverse conditions of transportation and handling. Can weighs 3 lbs., measures 17 inches high and 12 1/4 inches in diameter, retails for about \$1.

REA Restores Service

When American Overseas Airlines, Pan American Airways and several other international carriers canceled their contracts with Railway Express Agency in a disagreement over the latter's charges, it appeared that REA's international air express activities had been dealt a critical blow. Last fortnight REA made it clear that it was not ready to be counted out of the picture.

Through a joint arrangement between REA and Colonial Airlines, the latter would pick up air express shipments from REA at New York or Washington, fly them to Bermuda and then reforward them to Europe, Asia, Africa and the east coast of South America via connecting international air carriers.

This arrangement, REA announced, would restore the agency's international air shipping service to almost every foreign country formerly served. It also would enlarge REA's air express service to Central and South America, Australia, Alaska and Cuba, service to which had not been disrupted by the Mar. 1 cancellations.

Ready-Made Test Area

Denver and the Rocky Mountain area will provide an excellent ready-made proving ground to determine the demand for and advantages of a domestic air parcel post service, if Congress ever gets around to authorizing establishment of such a service, according to John A. Smith, cargo sales manager for Continental Air Lines.

Smith pointed out that a total of 66 cities in 10 states of the Rocky Mountain area now receive airline service out of Denver, and said these communities would welcome an air parcel post service because of their inaccessibility by surface transportation due to mountainous terrain, and because of the great distance between cities. The needs of this area are typical, he said, of the requirements of both the large and the small communities of the nation.

In fact, Continental has for the past two years pioneered a service somewhat similar to air parcel post between Kansas City, Denver, Colorado Springs and Pueblo, in conjunction with a large mail order house, flying parcels to these cities at rates comparable to those of the considerably slower surface carriers.

Convinced that a closer coordination of the merchandising methods of departments stores with airline cargo facilities and schedules in the Rocky Mountain area would result in something very much akin to a system of air parcel post, Smith has been talking to traffic men representing Denver's department stores and to all the air carriers serving Denver and the Rocky Mountain area. He reports enthusiastic backing for the proposal that the area be chosen for an air parcel post experiment, when the time comes for such a trial.

International Waybill: A new through international air waybill which permits shipments from any point on United Air Lines' system to be sent to more than 100 countries on a single shipping document was introduced by UAL on April 19. The standardized form, approved by IATA, is a major step forward in elimination of cumbersome shipping procedures in foreign trade. The waybill permits shipments to be sent on single document to any airport reached by 11 connecting carriers with which UAL has interline agreements.

Commissions Extended: American Airlines has extended commission payments to agents approved by IATA to sell air cargo. Formerly, agents received payments only for international portion of cargo hauls; the 5% is now paid from points of origination on AA's system to any destination in the world.

Forwarder Issues: Department of Commerce has issued a 71-page review of arguments for and against irregular air carrier status for freight forwarders in its December, 1947-March, 1948 Report on Domestic Transportation, titled "Air Freight Forwarding." Copies available from Department of Commerce, Washington 25, D. C., or from any of the department's field offices.

FTL Record: The Flying Tiger Line flew a record 1,250,000 ton miles of freight in March, increase of 400% over 350,000 for same month 1947. The company increased its list of new freight accounts by 60% in March, 40% of them being new to the air freight industry, R. W. Prescott, president, reported.

AMERICAN AVIATION



Seats for All—There are plenty of seats for passengers and friends in Atlanta's new terminal. These are in center of lobby facing the unusually long ticket counter and murals of Atlanta scenes. Unusual feature is fact that one corner of building is reserved for travelers waiting between planes. Writing desks are available.

All For \$70,000

How to make a lot out of little, how to produce a marvelously attractive building out of surplus odds and ends—that's the story behind the big new (but temporary) airline terminal at Atlanta Municipal Airport. For a cost of \$70,000, Jack Gray, the city's aviation-wise airport manager, has turned up with one of the smartest-looking and roomiest terminals in the world.

It all started with a surplus Army hangar. But Gray outdid New Orleans by making his look like a brand new building on the inside. Photo murals of scenes in Georgia extend the full length on one side above the ticket counters. Plenty of seats, too—and one whole corner of the building is fenced off for those waiting between planes. Writing desks are provided. There's a barber shop and a very smart restaurant operated by Hull-Dobbs. Also a spacious soda fountain and snack counter. For getting the most for his money, Jack Gray takes the 1948 medal. Atlanta really has a terminal now.

And we almost forgot, Gray erected an observation platform with the usual turnstiles. This will pay off. And there are covered passageways to the various loading ramps.

Smokestack Clouds WNA

The federal government's \$35,000,000 Washington National Airport, in many respects a model for the rest of the nation, stood in danger last week of acquiring a landmark familiar to many another U. S. airport: an industrial plant complete with smokestacks. Proposed overall height: about 194 ft.

Braddock Light and Power Co. is building a \$21,000,000 power plant 8,200 ft. from the end of the north-south runway, and federal officials were not at all sure there was anything they could do about it.

May 15, 1948

Pilots and airline officials said flatly that the structure, just on the edge of the approach zone and definitely in the turning zone, would not only result in raising minimums but would preclude Washington from ever being used as an all-weather field. Pilots would put the structure, on which over \$1,000,000 has already been spent, in the "mental hazard" class, along with nearby 555-ft. Washington Monument.

The north-south runway is the ILS runway, and present minimums are 400 ft. and $\frac{3}{4}$ mile. Minimum altitude over the range station is 520 ft. It will be necessary to raise these limits to at least 500 ft. and one mile, and 650 ft., respectively, it was said.

Commented Robert Ramspeck, Air Transport Association's executive vice president: "Construction of the plant . . . destroys to a large extent the \$35,000,000 investment which the federal government has put into this airport."

CAA first objected to the plant in 1942 when the city of Alexandria, Va., was re-zoning the property, but objections were unheeded. Air Force, Navy and ATA have also objected. In the past few weeks there have been meetings at CAA at which the power company, which said it relocated the proposed building once in an effort to overcome objections, discussed lowering the chimneys. Originally it was proposed to have buildings 140.7 ft. above field level with two 95-ft. chimneys on top. The company is said to have offered to lower overall height to about 194 ft., but CAA wants not over 150 ft.

No one yet knew what the outcome would be. There was a possibility that National Capital Parks might withhold permits to dig water conduits for the plant until CAA is satisfied. And the airspace subcommittee of the Air Coordinating Committee was studying the problem. But officials pessimistically



Peachtree Room—The new Hull-Dobbs restaurant, known as the Peachtree Room, features Uncle Remus in scenes from "Song of the South."

pointed out that no single agency of the government has statutory authority to prevent construction of hazards near airports.

EQUIPMENT

Equipment Prices Cut

Announcement that Westinghouse Electric Corp. had reduced prices on all airport lighting equipment from 5 to 10% came as a reversal of the trend in prices of most everything used in the aviation industry.

Among some 90 items subject to the new lower prices are: rotating airport beacons, flashing signal beacons, 24 types of strip and runway marker lights, wind cones, ceiling project lights, landing field floodlights, angle of approach indicators, runway designators, vapor proof hangar floodlights, and others. Westinghouse said improved production methods and greater volume had made the price reductions possible.

Surplus Equipment—Free

Too many airports have inadequate fire-fighting apparatus and snow removal equipment, to mention but two items, chiefly because their limited budgets have contained no provisions for such necessities.

The War Assets Administration has now offered aid to remedy this situation.

The WAA has offered the free transfer of airport equipment to public airport authorities whose applications have been approved by the Civil Aeronautics Administration. Included in the offering are any and all types of surplus equipment which will tend to help make an airport self-sustaining. Conceivably, this could cover such diverse items as paving materials, lighting, fire trucks and cafeteria equipment.

A system of priorities is being fol-

AIR TERMINALS

lowed by CAA and WAA in approving the applications, with first priority going to government-owned airports not yet declared surplus. Second preference goes to airports which have been disposed of as surplus, but which do not have the necessary operating equipment, while the third class consists of publicly-owned airports in need of such equipment.

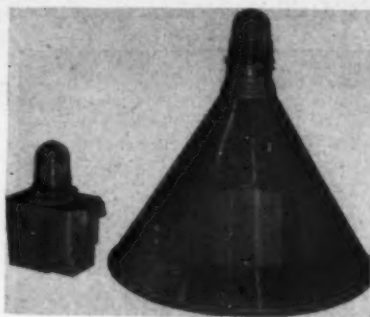
Portable Marker Lights

Two new flashing portable marker lights, suitable as airport obstruction indicators, have been announced by Westinghouse Electric Corp., Pittsburgh. Type S-1373146 is for night use only, while type S-1373147, in which the light source is mounted on a large, clearly visible cone finished in international orange, is effective for both day and night use.

Recommended airport use is to outline or identify temporary obstructions within the landing area, such as soft spots on the runways and landing strips, new construction work, or damaged aircraft.

Coiled neon-tube lamps are used in both types, powered by a standard, dry-type Hotshot battery. Average life of the battery is 150 hours, with flasher going 120 times a minute. For obstruction marking, a red lamp is used approximately equivalent to a 2-watt incandescent lamp.

The battery housing is cast aluminum, and the cone is of lead-coated steel.



Westinghouse's new portable airport marker light on the left (type S-1373146) is for night use only, while type S-1373147 on the right with its international orange cone can be used either day or night.

All interior parts are of non-ferrous, non-corrosive materials. The night marker weighs 22 pounds, the combination marker with cone 34 pounds.

Heavy-Duty Paint

A new heavy-duty synthetic paint said to offer valuable uses to airports and airline companies has been introduced by Lowebe Co., Inc., of Chicago. At airports, the free-spreading, abrasion-resistant paint can be used on floors and walls of hangars, for marking runways and landing strips, for floors, walls and radiators of waiting rooms and rest rooms, and for use in freight

sheds and boiler rooms. The manufacturer claims the paint expands and contracts easily with the material covered.

Obstruction Control Lights

The Fisher-Pierce photoelectric controls originally designed for uniform control of street lighting are now available for the control of aircraft obstruction lights on radio towers, industrial smoke stacks and other tall structures.

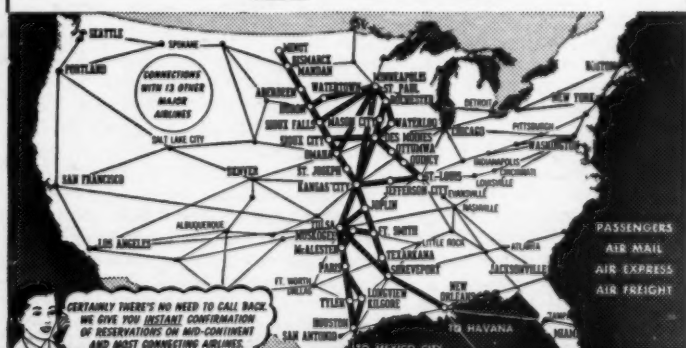
The controls turn on automatically with unvaried reliability at 35 foot candles and turn off at 55 candles. One model is rated to control 500 watts of incandescent lamp load, another to control 3,000 watts. Both operate at 120 volts, 50 to 60 cycles.

Of particular interest to airport officials is a fail-safe feature that keeps the light turned on in case of any functional failure. A time delay of 15 seconds is incorporated in the circuit to prevent its being turned off at night by lightning or any passing lights or beams that focus on its momentarily. Usual maintenance is a matter of replacing tubes about every two years. For further performance data and information, write to the Fisher-Pierce Co., 72 Ceylon St., Boston 21, Mass.



MID-CONTINENT AIRLINES ADDS 145,000 MILES MONTHLY FOR COMING SUMMER SEASON!

**Fine Connections, Friendly Service . . .
On This Travel Map:**



GO MID-CONTINENT AIRLINES

AN INCREASE OF 26% IN SCHEDULED MILES effective May 1st . . . provides more, fast, direct connections for your customers and cargo. Included in this additional mileage is new **NON-STOP** service between Kansas City and Minneapolis-St. Paul, fast **NON-STOP** flights between Tulsa and Houston — and a **DE-LUXE COMMUTER** service between Kansas City and St. Louis!

MID-CONTINENT AIRLINES INTERCHANGED 96,000 PASSENGERS with 13 major airlines during 1947 — and with our added mileage and new, fine connections, we look forward to a large increase in 1948. No other airline offers so much to off-line passengers in the "Heart of America."

*Mid-Continent Airlines Salutes the
30th Anniversary of Air Mail Service*

Electric Eye Aids Service

It frequently happens, at small airline stations with limited personnel, that a passenger waits in front of the counter for many impatient minutes while the agent on duty is out on the ramp handling express shipments or in the back office sending teletype messages. Result: an unhappy passenger. Continental Air Lines passengers hereafter will be spared this particular annoyance.

At all its station ticket counters, Continental is installing a photo-electric cell arrangement which shoots a beam of light across the counter. When a customer stands at the counter, the beam is broken, and the gadget automatically "sings" the agent by means of a light and a chime. Cost: about \$50 per installation.

Credit for this helpful device goes to Frank W. Dakan, former Air Transport Command radio operator and onetime civil engineer, now serving as flight service agent for Continental at Denver.

NWA's Sleeper Seat

There is a decided inclination among passengers on transcontinental or international air flights to sleep away a part of the journey, but the seats on many airliners are not conducive to sound or restful sleep. Northwest Airlines now thinks it has remedied this situation.

After three years of experimentation and testing, NWA recently adopted a new-type convertible sleeper seat which will shortly be installed on all DC-4 transports used on Northwest's route to Alaska and the Orient. An adaptation of the seat probably will also go into the Martin 2-0-2's used on NWA's domestic routes.

At the press of a button on the arm of the seat, a spring and cable mechanism lowers the back to a position nearly level with the seat, a padded leg rest emerges, and the conversion into a "bed" is completed in a matter of seconds. The passenger reclines on air-foam sponge cushions.

One feature of the new seat that should be welcomed by passengers is a mechanism which slides the seat cushion forward while the back of the seat is being moved into a reclining position, thus preventing bunching and wrinkling of passengers' clothing. Another feature is a built-in pillow with a soft center and firm outside edges so that the passenger's head won't roll back and forth. The adjustable leg rest, another innovation, is a few inches narrower than the seat itself and is rolled up on hinges from below the cushion.

Space and weight were two important problems in connection with the designing of the seats. Through use of light magnesium and aluminum metals, weight of each seat was held down to 32 pounds. A spacing of 51 inches between seats provided enough room for converting the 32 seats on the DC-4's into



CAL's Electric Eye—Frank W. Dakan (right), flight service agent for Continental, explains how the electric eye works to C. J. Lowen, manager of the Municipal Airport, Denver. Reported to be a gadgeteer of many talents, Dakan is credited with developing the photoelectric cell arrangement which signals CAL agents that a passenger is waiting for service.

sleepers without crowding the passengers.

Northwest's new seats are a product of the Warren McArthur Corp. of Bantam, Conn., but the design was worked out by the manufacturer's engineers and the airline's engineers on the basis of extensive experimentation. Incorporated into the design were some of the recommendations of Mayo Clinic medical experts who checked reactions of passengers to different kinds of seats, and of Army doctors who made similar studies in the aero medical laboratory at Wright Field.

The seats cost about \$250 each, but Northwest is confident its passengers will think them well worth it.

TWA Meals Quick Frozen

TWA now is supplying the food for its in-flight service throughout the system from its production kitchen in Kansas City. The meal items are quick frozen, packed in dry ice and shipped twice a week to the various commissaries on the line where they are stored in deep freeze units until just before flight time when they are unfrozen and heated to be placed aboard the planes. About the only portion of a TWA meal, aside from coffee, that is prepared locally consists of the vegetables. There's no need to ship them from Kansas City because quick frozen vegetables can be obtained at any of the commissary points.

By taking advantage of quick freezing methods, TWA calculates that it can effect substantial economies and at the same time provide consistent quality in the meals served aloft by doing all the cooking in the one central production kitchen. Virtually a 100% elimination in waste is attained. The food will keep indefinitely in a deep freeze unit.

Thus if there are flight cancellations because of weather or other reasons the meals scheduled can be kept until the next day or the next week or the next month.

Another economy is that it isn't necessary to have trained chefs and cooks at the various commissary points. The simplicity of preparing the quick frozen foods for service aloft also reduces the number of kitchen helpers and other commissary employees needed to do the job.

After food is prepared in the production kitchen in Kansas City it is packaged in convenient handling sizes for ease of shipping and deep freeze storage. After the various items of a menu are unfrozen or heated, serving portions are made up and arranged for tray service aloft in the line commissaries just as if they had been prepared locally.

NAL Absorbs Charge: National Airlines, starting May 1, is absorbing charges for limousine transportation of passengers between Newark Airport, where its planes land and take-off, and La Guardia Field, where NAL passengers have to make connections with both domestic and international flights. Passengers have been paying \$2.30 for the service.

Special Routing: United Air Lines is offering special routing arrangements enabling passengers to add cities to their itineraries at little or no extra cost. As an example: a passenger flying from Chicago, Milwaukee or points east to San Francisco can go by way of either Los Angeles or Portland, Ore., at no additional cost. Or he can cover both cities, going via Los Angeles en route to San Francisco and returning via Portland with the addition of only the Sacramento-Medford fare.

NEA Launches Sales Drive

To offset its first-quarter traffic reverses, which were more acute than those of most of the domestic airlines because of the unusually rugged New England winter, Northeast Airlines this month launched a two-pronged sales offensive. The prongs:

(1) A new monthly station sales contest with bonus payments to employees of the winning station each month.

(2) A completely new advertising program designed by its new agency, Pedlar & Ryan, to create a specific identity and personality for the line.

The advertising program features one-minute radio commercials in most of the principal traffic points served, backed up by frequent newspaper insertions. Theme of the copy is New England friendliness, coupled with Northeast's new slogan, "The Yankee Fleet."

George F. Scott, general sales manager, promised that other sales innovations would be effected by Northeast in the near future. The company aims, he said, to cash in heavily on the vacation travel potential in its area, which embraces Martha's Vineyard, Bar Harbor, Cape Cod and other New England resort communities.

Travel Restrictions Lifted

Restrictive orders banning pleasure travel to New Zealand, Australia, the Fiji Islands, New Caledonia, Shanghai the Philippines, Hong Kong and Siam have been lifted by the U. S. State Department. Tourists desiring to visit these areas will have to submit, with their passport applications, assurance that hotel accommodations will be available at the points they intend to stay. Travel in China, outside of Shanghai, will be subject to permission of the American Consul-General at Shanghai or the U. S. Embassy at Nanking.

TICKETING

'Lightning' Ticket Office

With a "saw tooth" window exterior leading into "lightning" ticket counters inside, American Airlines' new ticket office in Chicago is designed to highlight fully the speed theme of air transportation.

Opening of the new office in the Williams Building at Monroe and Wabash last month was the final step in a three-phase program begun over two years ago to bring all the airline's sales activity in that city under one roof. Decorated in a combination of rose and beige, the office consists of 4,750 sq. ft. arranged to provide an atmosphere of relaxation for passengers waiting to purchase tickets. The room features a 19-ft. map of the world on the east wall and a quiet lounge away from public view.

The ticket counter, considered by the company as the most efficient and most rapid ticketing unit in the country, has five step-backs which give the appear-



'Lightning Streak'—Six Chicago ticket agents who man the stations at American Airlines' new "lightning streak" counter are shown here: (left to right) Walter Nielson, Art Fagan, Tom Murphy, Assistant Manager Arch Hammett, Art Barr, and Mary Alice Nichols.

ance of a lightning streak. Unusual exterior view is provided by "saw tooth" windows on the Monroe and Wabash frontage. Each window starts at the sidewalk line and drops back about four feet, said to be a completely new treatment for Chicago windows. The corner itself is of solid black granite.

First stage in the program to centralize Chicago sales activity saw the airline reservations department housed at the new site in 1946. Second stage occurred last Aug. 15 when all regional and district sales, properties, and public relations offices moved to the second floor of the building. Opening of the ultra-modern emporium on the ground floor completes the program, according to L. W. King, American regional v.p.

Telephone Ticket Office

Sometimes an airline finds itself up against a situation where a good location for a downtown ticket office is either unavailable or too costly in relation to the revenue-generating potential of the city. British Overseas Airways Corp., finding itself in some such situation in Philadelphia, came up with a bright solution.

Through arrangement with the Bell Telephone Co., BOAC is now listed in the Quaker City directory under Walnut 2-2458, and any Philadelphian who dials that number is connected directly with the airline's offices in New York, where a reservations clerk provides the information or booking desired. Most callers are unaware that they are talking over long distance. BOAC expects to open similar "telephone" offices in other major cities.

NEW SERVICES

Capital Airlines inaugurated service in Atlanta on May 12, completing implementation of the additional route authorizations granted it in the Boston-N. Y.-Atlanta-New Orleans Route Case.

Delta Air Lines on May 1 opened its first through service from New Orleans to Cincinnati, via Birmingham, Atlanta and Knoxville.

Eastern Air Lines has begun service into Wilmington, Del., initial service being three schedules daily in each direction.

Mid-Continent Airlines has initiated non-stop schedules between Kansas City and Minneapolis, connecting with flights to and from Houston.

Piedmont Airlines expects to inaugurate service over its last important route segment—Norfolk, Va., to Cincinnati, via Richmond, Roanoke and other intermediate points—this month.

United Air Lines, which for a year had been serving the Sun Valley area through the Gooding Airport, pending improvements to the Twin Falls (Ida.) Municipal Airport, is now using the latter field.

United Air Lines will start service into Baltimore on June 1 with initial schedules of three flights daily, one incoming from Chicago, the others one-stops to Chicago via Toledo.

Wisconsin Central Airlines has begun serving Baraboo-Portage with one flight daily north and west to Duluth-Superior and the Twin Cities and one south-bound to Milwaukee and Chicago.

Airlines File 1947 Salary Reports

The Civil Aeronautics Board has received Schedule E reports showing officers' and directors' salaries for the following airlines during calendar 1947:

American Airlines

	1947 Salary	Change from 1946
C. R. Smith, chairman of board	\$60,000	+ 10,000
R. S. Damon, pres.	40,000	.....
Amos Culbert, v. p.	20,000	+ 2,500
R. E. S. Deichler, v. p. ..	20,000	+ 5,690
L. G. Frits, v. p.	22,500	.....
C. W. Jacob, v. p. and secy.	16,500	+ 3,000
William Littlewood, v. p.	25,000	+ 2,500
O. M. Mosier, v. p.	25,000	+ 2,500
R. W. D. Smith, Jr., v. p.	17,500	+ 345
W. J. Hogan, treas.	12,277	.....
W. H. Miller, asst. v. p. ..	16,227	+ 1,227
Carlene Roberts, asst. v. p.	10,000	+ 1,500
M. T. Stallter, asst. v. p.	10,466	+ 467
G. C. Van Nostrand, asst. v. p.	9,300	.....
P. G. Larie, comptroller and asst. treas.	13,600	+ 1,166
V. J. Long, asst. treas. and asst. secy.	12,500	+ 1,139
W. L. McMillan, asst. treas. and asst. secy. ..	10,000	+ 639
C. H. Kibbee, asst. treas.	13,200	+ 1,300
A. A. Paradis, asst. secy.	5,550	.....
R. L. Griffith, asst. secy.	9,295	+ 3,959
A. R. Bone, Jr., regional v. p.	10,000	.....
W. N. Bump, regional v. p.	10,000	.....
L. W. King, regional v. p.	10,000	.....
M. D. Miller, regional v. p.	10,000	.....
C. R. Speers, regional v. p.	10,000	— 388
*M. Forrest, v. p. and treas.	5,222	.....
*P. P. Willis, v. p.	2,633	.....
*H. K. Rulison, treas.	5,799	.....
*W. G. Lipscomb, asst. v. p.	7,791	.....
*T. O. English, asst. treas.	3,850	.....

* Officers resigned during 1947

Braniff Airways

	1947 Salary	Change from 1946
T. E. Braniff, pres. and dir.	\$24,000	.....
C. G. Adams, secy.-treas. and dir.	15,000	.....
R. C. Shrader, v. p. and dir.	15,000	.....
Charles E. Beard, exec. v. p. and dir.	20,000	+ 5,000
Hal C. Thurman, dir. and general counsel	15,000	.....
Ferdinand Eberstadt, dir.	500	.....
Fred Jones, dir.	500	.....
George A. Butler, dir.	500	.....
Roger J. Whiteford, dir. ..	250	.....

NOTE: In addition to the salaries listed above the following amounts were received as bonuses and indirect compensation: Braniff \$2,925; Adams \$1,433; Shrader \$1,697; Beard \$1,671; Thurman \$1,005.

Capital Airlines

	1947 Salary	Change from 1946
C. Hedell Monro, pres. (resigned)	\$32,610	— 2,389
J. H. Carmichael, pres.	24,500	— 499
R. H. Lochiel, v. p. and comptroller	20,100	— 840
Robert J. Wilson, v. p.	17,280	— 720
Fred M. Glass, v. p. (resigned)	2,187	.....
Hayes Dever, secy.	12,187	+ 2,187
R. P. Wright, acting treas.	8,500	.....

May 15, 1948

Chicago & Southern

	1947 Salary	Change from 1946
Carleton Putnam, pres. and dir.	\$26,000	+ 2,187
Sidney A. Stewart, exec. v. p. and dir.	24,999	+ 18,031
Junius H. Cooper, v. p. treas., and dir.	15,000	+ 11,250
Richard S. Maurer, secy.	11,250	+ 2,000
R. S. Scrivener, asst. treas.	5,100	+ 120
Erma Murray, asst. secy. ..	4,620	+ 120
T. H. Hambleton, asst. treas.	2,562	.....

Continental Air Lines

	1947 Salary	Change from 1946
Robert F. Six, pres.	\$27,292	+ 3,125
C. C. West, Jr., v. p.	13,833	+ 3,083
O. R. Haueter, v. p.-op.	14,417	+ 1,167
Ronald C. Kinsey, v. p.	5,000	.....
Joseph A. Uhl, secy. and treas.	10,917	+ 1,183
Dorothy V. Rylander, asst. secy.	3,155	+ 420

United Air Lines

	1947 Salary	Change from 1946
W. A. Patterson, pres. and dir.	\$59,375	+ 9,375
J. A. Herlihy, v. p. operations and dir.	35,000	+ 5,000
R. W. Ireland, v. p.-administration	30,000	+ 5,000
Harold Cray, v. p.-traffic	18,500	+ 2,000
John Newey, v. p.-finance	17,500	.....
H. E. Nourse, v. p.-economic controls	17,500	+ 3,500
R. F. Ahrens, v. p.-personnel	16,500	.....
D. F. Magarrell, v. p.-passenger service	16,500	.....
N. B. Haley, treas.	13,000	.....
C. H. Blanchar, comptroller	10,000	+ 1,600
S. P. Martin, secy.	11,500	+ 1,000
M. C. Ansorage, dir.	1,100	.....
Gardner Cowles, dir.	500	.....
Justin W. Dart, dir.	500	.....
P. G. Hoffman, dir.	1,000	.....
E. A. Johnston, dir.	600	.....
J. J. Mitchell, dir.	800	.....

NOTE: In addition to salaries listed above the following amounts were received as bonuses and indirect compensation: Patterson \$4,759; Herlihy \$2,315; Ireland \$4,370; Cray \$2,475; Newey \$1,531; Nourse \$1,285; Ahrens \$1,105; Magarrell \$970; Haley \$1,870; Blanchar \$435; Martin \$687. (All items listed as bonus and indirect compensation for officers represent company's contribution to retirement plan).

Western Air Lines

	1947 Salary	Change from 1946
Terrell C. Drinkwater, pres. and dir.	\$34,999	.....
Leo H. Dwerikotte, (resigned) exec. v. p. and dir.	19,999	+ 638
Stanley R. Shatto, v. p. eng. and maint.	6,902	.....
Charlie N. James (resigned) v. p.-oper.	15,000	+ 377
Marvin W. Landis, v. p.-service	9,569	.....
Richard A. Dick, v. p.-sales	9,569	.....
Paul E. Sullivan, v. p. and secy.	10,200	+ 377
Ronald C. Kinsey (resigned) v. p.	4,800	.....
Robert K. Dight (resigned) asst. secy.	2,624	.....
D. F. Renda, asst. secy. ..	2,148
J. J. Taylor, treas.	9,277	+ 1,255
Robert H. Purcell, asst. treas.	1,080



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U. S. Domestic Airline Revenues & Expenses for February

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUND & INDEBT EXPENSES	NET OPERATING INCOME
American	\$ 4,177,168	\$ 3,519,669	\$ 201,943	\$ 114,526	\$ 242,337	\$ 30,144	\$ 2,051	\$ 5,983,352	\$ 2,505,002	\$ 3,478,350	\$ -1,806,185
Boeing	715,670	622,894	40,874	23,053	19,845	7,180	...	922,945	378,654	534,291	-197,275
Capital-PGA	1,164,794	792,597	223,063	53,864	61,633	4,876	2,762	1,615,197	686,082	929,115	-430,393
Caribbean	46,473	33,457	10,397	...	1,283	455	...	46,446	20,498	25,948	27
C & S	420,684	341,477	37,431	14,119	6,639	3,805	2,311	560,993	218,207	350,786	-140,309
Colonial	191,117	131,660	56,122	1,990	618	1,106	...	258,199	112,927	141,232	-63,042
Continental	295,845	176,530	105,179	3,710	3,150	1,448	3,859	344,815	148,393	196,422	-48,570
Delta	835,073	732,352	45,442	21,135	22,932	11,090	150	1,058,411	476,374	582,077	-223,318
Eastern	5,564,891	5,105,771	141,164	131,200	69,016	101,915	3,214	4,985,984	2,529,044	2,456,940	578,907
Hamilton	279,506	237,770	1,592	9,728	20,334	6,152	3,877	276,697	107,460	169,237	2,809
Inland	140,243	98,768	46,188	1,253	1,267	842	...	164,903	70,851	94,052	-16,660
NCA	407,960	324,471	71,840	5,893	3,325	1,757	...	483,167	189,968	293,199	-75,207
National*	127,287	115,322	2,927	-784	6,367	2,544	...	403,430	147,104	256,326	-127,143
Northeast	241,120	176,034	53,791	6,323	4,721	521	...	401,794	184,500	217,288	-160,673
Northwest	1,070,287	909,277	97,523	42,046	19,364	5,967	574	1,736,916	784,238	952,678	-666,629
TWA	3,611,488	3,114,612	252,567	168,507	106,131	49,018	2,713	4,442,954	1,918,944	2,524,010	-429,467
United	3,808,010	3,095,901	283,030	171,548	201,098	30,467	1,684	5,174,689	1,991,002	3,183,687	-1,366,679
Western	528,186	433,300	54,247	5,057	14,827	3,733	...	729,331	305,603	423,728	-205,145
TOTALS	23,839,822	19,961,862	1,845,328	772,868	805,007	263,028	23,262	29,584,173	12,774,817	16,809,356	-5,744,352

* ALPA Pilot strike started midnight February 3, 1948.

U. S. International Airline Revenues & Expenses for January

AIRLINES	TOTAL OPERATING REVENUES	PASSENGER REVENUES	U. S. MAIL REVENUES	FOREIGN MAIL REVENUES	EXPRESS REVENUES	FREIGHT REVENUES	EXCESS BAGGAGE REVENUES	NON-SCHEDULED TRANSPORT REV.	TOTAL OPERATING EXPENSES	AIRCRAFT OPERATING EXPENSES	GROUND & INDEBT EXPENSES	NET OPERATING INCOME
American	240,907	190,839	2,909	5,307	24,646	4,785	280,816	130,983	149,833	-39,909		
Amer. O'Seas	955,906	694,422	96,627	40,939	84,218	10,982	1,515,894	686,478	830,416	-560,988		
C & S	96,411	54,442	39,045	...	2,263	597	85,078	38,493	46,585	11,334		
Colonial	113,262	63,974	46,831	...	1,954	372	123,489	54,804	68,685	-10,227		
Eastern	81,125	73,829	1,751	...	7,544	...	71,881	37,798	34,123	11,283		
National	68,894	58,826	397	...	7,486	2,186	74,884	26,153	48,731	-5,990		
Northwest	759,615	292,251	382,016	26,508	1,225	31,638	6,111	860,891	411,631	449,260	-101,277	
Panagra	1,074,315	788,126	89,998	65,909	90,832	26,999	1,197,229	496,808	700,421	-122,914		
Pan American	4,539,713	3,386,710	151,125	191,094	569,999	...	4,809,867	1,888,101	2,921,766	-270,154		
Latin Amer.	3,423,807	1,452,545	1,545,078	130,000	236,516	...	3,177,619	1,600,020	1,577,599	246,188		
Atlantic	2,729,769	1,457,547	1,049,264	20,000	164,508	...	2,648,119	1,507,133	1,140,986	81,649		
Pacific	420,320	129,151	265,203	...	24,383	...	394,012	190,683	203,329	26,300		
Alaska	1,874,169	1,199,051	233,942	213,015	114,881	43,087	2,480,461	1,169,796	1,310,665	-606,293		
TWA	187,172	169,012	8,610	...	6,714	2,587	252,430	134,174	118,256	-65,258		
United	16,567,385	10,010,725	3,914,996	692,772	1,292,806	75,531	300,419	131,598	17,973,670	8,373,015	9,600,655	-1,406,288
TOTALS												
1)Represents company estimate of amount which should be received in accordance with the terms of the Civil Aeronautics Act when permanent rates are established. Estimate exceeds temporary rate in effect by \$1,334,560.												
2)Temporary rate in effect exceeds estimate by \$146,711.												
3)Estimate exceeds temporary rate in effect by \$178,253.												

1) Represents company estimate of amount which should be received in accordance with the terms of the Civil Aeronautics Act when permanent rates are established. Estimate exceeds temporary rate in effect by \$1,334,960.
 2) Temporary rate in effect exceeds estimate by \$142,711.
 3) Estimate exceeds temporary rate in effect by \$17,253.

U. S. International Airline Traffic for February

AIRLINES	REVENUE PASSENGERS	REVENUE PASSENGER MILES	AVAILABLE SEAT MILES	PASSENGER LOAD FACTOR	U. S. MAIL TON-MILES	FOREIGN MAIL TON-MILES	EXPRESS TON-MILES	FREIGHT TON-MILES	TOTAL TON-MILES	REV. TRAFFIC TON-MILES	AVAILABLE TON-MILES	% AVAILABLE TON-MILES USED	REVENUE PLANE-MILES	SCHEDULED MILES	% SCHEDULED MILES COMPLETED
American	4,049	3,417,000	5,930,000	57.6%	6,452	2,822	...	109,206	488,993	931,731	52.9%	172,217	176,101	92.2%	
Amer. O'Seas	2,298	6,281,000	17,206,000	36.5%	129,944	22,793	152,535	...	994,767	2,156,793	46.1%	456,472	494,690	92.2%	
C & S	1,060	726,000	1,726,000	42.1%	129	...	...	8,567	82,111	200,962	40.9%	38,360	39,730	96.6%
Colonial	1,436	1,142,000	2,399,000	47.6%	596	37	...	906	125,565	203,285	61.8%	54,750	54,212	101.0%	
Eastern	1,185	1,232,000	3,370,000	36.6%	3,612	...	...	22,446	161,008	462,202	34.8%	60,320	60,320	100.0%
National	...	98,000	289,000	33.9%	127	...	3,105	...	13,266	47,474	27.9%	6,288	6,288*	100.0%	
Northwest	1,960	5,049,000	9,017,000	56.0%	77,220	20,981	3,291	57,970	693,318	1,217,958	56.9%	339,308	307,662	99.9%	
Panagra	7,696	8,136,000	13,501,000	60.3%	25,001	9,050	109,729	1,468	1,027,627	1,812,339	56.7%	450,136	477,042	95.1%	
Pan American	62,796	44,018,000	84,643,000	52.0%	181,250	90,895	1,365,915	124,678	6,334,808	12,139,229	52.2%	2,309,754	2,324,465	97.8%	
Latin Amer.	6,562	15,005,000	27,221,000	55.1%	195,967	53,997	296,826	9,559	2,295,397	4,310,437	53.3%	890,609	898,059	94.9%	
Atlantic	6,032	18,094,000	27,503,000	65.8%	272,533	12,352	256,295	...	2,356,763	3,968,012	59.4%	1,114,138	1,106,768	99.4%	
Pacific	1,768	1,079,000	5,379,000	34.9%	28,570	...	126,290	...	351,366	779,514	45.1%	180,621	188,248	94.8%	
Alaska	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TWA	3,958	11,912,000	25,779,000	46.2%	181,790	69,162	221,290	...	1,803,130	3,563,053	50.6%	789,110	814,263	95.4%	
United	861	2,066,000	4,375,000	42.2%	28,272	...	9,910	...	251,817	486,896	51.7%	139,200	139,200	100.0%	
TOTALS	101,661	119,055,000	228,338,000	52.1%	1,131,463	281,639	2,645,206	334,800	16,979,938	32,279,885	52.6%	7,021,282	7,007,048	96.8%	
* Figure not yet available. Data will be included at a later date.															
** Does not include 27,236 miles which were scheduled but not flown because of pilot strike Feb. 9, 1948. If these miles were included the completion factor would be 18.0%.															
NOTES: Final figures for Western Air Lines															
December: Freight ton-miles 35,394; Total ton-miles revenue traffic 203,970; % available ton-miles used 40.9%															
January: Freight ton-miles 24,737; Total ton-miles revenue traffic 216,590; % available ton-miles used 43.8%															

* Figure not yet available. Data will be included at a later date.

** Does not include 27,236 miles which were scheduled but not flown because of pilot strikes Feb. 3, 1948. If these miles were included the completion factor would be 18.8%.

NOTE: Final figures for Western Air Lines

December: Freight ton-miles 32,394; Total ton-miles revenue traffic 203,970; % available ton-miles used 40.9%
 January: Freight ton-miles 24,237; Total ton-miles revenue traffic 216,550; % available ton-miles used 43.8%

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Classified Advertising

The rates for advertising in this section are as follows: "Help Wanted," "Positions Wanted," "Aircraft Wanted or For Sale," and all other classifications \$1.00 a line, minimum charge \$4.00. Estimate bold face heads 30 letters and spaces per line; light body face 40 per line; box numbers add two lines. Terms, cash with order. Forms close 20 days preceding publication date. Rates for display advertisements upon request. Address all correspondence to Classified Advertising Department, AMERICAN AVIATION PUBLICATIONS, 1317 F Street N. W., Washington 4, D. C.

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PRODUCT LITERATURE

A 20-page illustrated pamphlet containing a description of the Allison radar is being distributed by the Aviation Maintenance Corp. Pamphlet describes the unit, which is designed for commercial application, its principles of operation and its installation. Copies may be obtained from Aviation Maintenance Corp., Van Nuys, Calif.

Offered free to Diesel engineers is a new 8-page two-color pamphlet titled "Taking the Guesswork Out of Lubrication," prepared by the Gerin Corporation, Red Bank, N. J. It illustrates simple methods within the skill of engine attendants for measuring contaminants in lubricating oils.

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WINGS OF YESTERDAY

25 Years Ago

St. Louis, Mo. was selected by the National Aeronautical Association as the scene of the 1923 National Airplane Races.

The Wright Aeronautical Corp. announced that it had acquired by merger the assets and business of the Lawrence Aero Engine Corp.

The Czechoslovakian government proposed to vote a credit of 150,000,000 crowns for the Air Service for 1923. This represented an increase of 22,000,000 crowns over last year's budget. A Czechoslovakian Air Transport Co. was to be subsidized to operate the Berlin-Prague, Vienna-Bratislava line.

10 Years Ago

(In AMERICAN AVIATION)

Pan American Airways was planning to file an application to inaugurate trans-Atlantic air service.

The long-delayed United Air Lines suits against the U. S. government, resulting from the 1934 air mail contract

cancellations, were finally brought to hearing before the Court of Claims in Washington, during week of April 30, 1938.

LETTERS

Nothing New

To the Editor:

I read with much interest the news story carried on Page 32 of the April 1 AMERICAN AVIATION. It contained an announcement from Lewis J. Moorman, Jr., executive vice president of Slick Airways, regarding his company's "new concept of airfreight tariff structures featuring single charge, door-to-door delivery rates."

This "new concept" was the basis of the first airfreight tariff ever filed—by American Airlines—in October of 1944, and remained our basic airfreight rate structure until April, 1946.

It is most interesting to note that one of the non-scheduled carriers, who habitually curl their lips in scorn at the mention of a scheduled airline, has gotten around to designing a "new concept" that American Airlines had in use for nearly two years.

WALTER H. JOHNSON, JR.

Director of Sales—Eastern Region
American Airlines

NEA's Mail Pay

To the Editor:

Page 19 of AMERICAN AVIATION for May 1 speaks authoritatively of \$2,107,000 for Northeast in additional compensation dating back to May 1, 1945.

Sounds wonderful, but it about quadruples the actual facts. This award is "Inclusive of

mail compensation previously received"—and this fine print brings the new money down to \$546,800.

Wish you were right, but half a million is so darned little alongside two million. By the way, this covers a two-year period.

R. H. HERRNSTEIN,

Assistant Treasurer,

Northeast Airlines, Inc.

(Editor's Note: We're doubly sorry: both for the slip and for fact that NEA isn't getting that additional one and a half million.)

BOOKS

PERSONAL AIRCRAFT BUSINESS AT AIRPORTS, by Lynn L. Bollinger and Arthur Tully, Jr. Published by Division of Research, Harvard Business School, Soldiers Field, Boston 63, Mass. 348 pp. \$4.25.

Here is another in the series of research studies by the Harvard Business School. It is one of the best.

Early chapters are devoted to analyzing the personal aircraft market in a devastatingly frank manner. It is hardly an encouraging report, but it will doubtless do much good in bursting bubbles and getting the private flying field down to fundamentals. Nor is the fixed base industry in a heartwarming spot, either. It is overcrowded. Only the GI training is keeping a large part of the 8,000 operators in business.

Much of the book is devoted to defining the business of a local operator, helping him to set up accounts, to fix charges, and to know when he's properly financed. It is meticulous in its detailed analysis of this phase of aviation. The book should be 'must' reading for operators, manufacturers, city officials, bankers, oil companies, insurance people and all others who have a stake in personal aircraft.

OBITUARY

James C. Willson

James C. Willson, 62, retired aviation financier and member of the executive committee of Curtiss-Wright Corp., died May 2 in St. Luke's Hospital, New York, after a long illness. He was a director of Wright Aeronautical Corp. and chairman of the board of Irvin Air Chute Co., Buffalo, N. Y.

Thomas H. Jones

Thomas H. Jones, secretary and a director of The Glenn L. Martin Co. since 1928, died at Fredericksburg, Va., April 14, after attending the annual meeting of Martin stockholders. He was 60 years old. A leading Midwest attorney, he headed the law firm of Jones, Day, Cockley and Reavis, of Cleveland.

Capt. George Brill

Capt. George Brill, 3,000,000-mile TWA pilot, died in Kansas City of a heart attack at the age of 46. He had been with TWA since 1931, and before that had been with Western Air Express for a year.

A native of Borton, Ill., Brill attended Washington University in St. Louis for two years. He learned to fly at El Monte, Calif., in 1924. During his career with TWA, he had worked up to assistant superintendent of flying.

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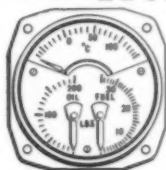
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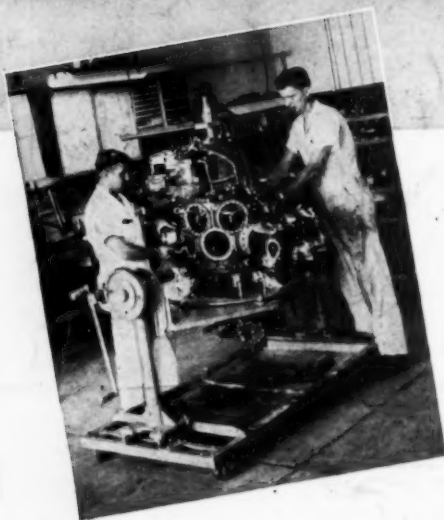
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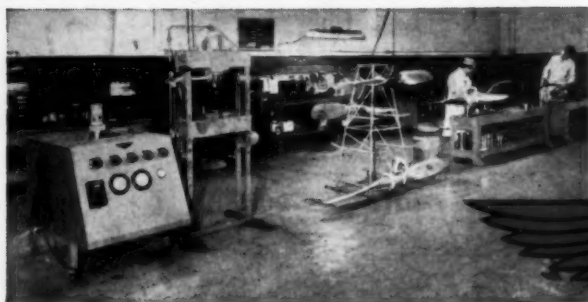


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